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The Yearly Report

OF THE

Royal Psychiatric Clinic

AT

Munich

For the Year 1904-1905



Translated and Arranged by the Medical Staff of Rockwood
Hospital for the Insane, Kingston, Ont.

E. Ryan,

W. C. Herriman,

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W. T. Connell.

PRINTED BY ORDER OF

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1. CARE OF THE SICK.

The patients were transferred without trouble, from the old hospital to the new Psychiatric Clinic, and we are pleased to state that so far, the clinical arrangements have met our most sanguine expectations. In the new building we are able without any particular difficulty to carry out the dormitory plan; only one patient was isolated, and that owing to a misunderstanding. The influence of this new plan of treatment upon the whole character of the Clinic far exceeded our expectations. After our experience in the old Munich district asylum for the insane we expected that the irritable and violent would be difficult to treat and control, without isolation. We found that these dreaded difficulties did not arise, and with the exception of a few temporary disturbances, quietness and order prevailed over the whole department, a fact which we had before considered an absolute impossibility, where so many patients were admitted. Occasional deeds of violence of course occurred, but on the whole there was scarcely any more disturbance than occurred in other hospitals. There are various reasons for these results. First, there was no overcrowding in our wards. With the exception of the small private wards there are four wards for men and three for women patients, so that we can classify our patients according to their condition. We have in the naming of our wards avoided the unpleasant names "quiet ward" and "restless ward." It must of course be taken into consideration that we have a very large number of attendants, almost one attendant for every two patients; the night attendants are included in this. The hours on duty of the sisters are essentially shorter than the ordinary attendants, on account of their religious duties. It must be acknowledged, that the influence of the sisters has been very marked, especially in regard to the quietness and order in the men's wards. The control of a sister over each ward made the clinic more hospital like to the patients, and softened the rougher manners of the male attendants. It was also noticed, that the comfortable ward furnishings, the plentiful supply of pictures, the avoidance of tin or pasteboard dishes lessened the inclination to destroy. Alcohol was eliminated completely from the diet of the patients, and probably this accounts somewhat for the lessening of excitement. It goes without saying, however, that the main cause of improvement in our treatment of patients is in the progress we have made in the treatment of conditions of excitement. We have insisted on the patient remaining in bed for a considerable time, which routine has been more or less strictly adhered to in the case of three-fourths of our patients. In the reception ward and also in the observation ward, which corresponded to the former "restless" ward, all the patients were kept in bed the greater part of the day, which, however, did not prevent them in fine weather from wandering about in the garden. In the upper "quiet" wards the patients were not confined to bed, but spent most of the day at such occupations as the clinic afforded. If the bed treatment alone was not sufficient to allay the conditions of excitement, the two remedies chiefly used were the wet packs and continuous baths; the former proved very efficacious in the

earlier treatment and also in cases laboring under strong and impulsive excitement, especially in cases of Katatonia. In every case of this kind there is the dormant inclination to automatically obey commands. We have found, that with some perseverance one can nearly always succeed in accustoming the most excited persons of this kind to the pack, and that they remain in them without difficulty. At first they may often in their struggles free themselves, but by constantly repeating this treatment, day and night with short intervals, you will generally have the satisfaction of seeing the patient quiet down for a period, which gradually increases in length. We adhere strictly, to the principle, in order to avoid every danger of chilling the patient, and to avoid all appearance of compulsory treatment, that the pack should not be continued longer than two hours without interruption.

In cases of excitement, which is not of the Katatonic form, we have found the packs of less use in allaying the excitement. For such cases we use the continuous baths. In cases of acute mania the continuous baths are much superior to other methods of treatment. When necessary the baths are continued night and day without interruption. The heating of the warm water supply however caused us some difficulty, on account of the thick lime sediment, which was deposited by the steam pipes in the cistern. The capacity of our cistern proved somewhat too small, so that we have arranged to build a larger cistern. The total contents of all our hot water systems will be set at about 6.7 cubic meters. In order to prevent the possibility of scalding the patient, the inflow of warm water, under no circumstance should be above 60 deg. Celsius. We have discouraged the introduction of mixed batteries, because our experiments with them were not a success, and did not meet the demands, that were expected of them. As a consequence we had the misfortune to have a woman, who was suffering from paresis badly scalded, and died from the effects of it. The judicial investigation established the fact, that very hot water had run into the bath at a time, when the attention of the nurse was taken up by some other restless patient, and that she had therefore, contrary to instructions neglected to carefully test the warmth of the water.

We had also some difficulty with the baths in other ways. It turned out, that notwithstanding all warning at the time of the original erection of the baths, there was not sufficient care taken with regard to the impermeability of the walls and floor, more especially on the women's side, where the bath had to be used for a longer time continuously. By the insertion of a thick layer of asphalt underneath and behind the tile covering, the evil was temporarily remedied, whether permanently must be learned later from experience. The heat in the women's bathroom, on account of the very frequent use of the warm water became very troublesome in summer, more especially as the windows could not be opened high enough out of consideration for the patients in the adjoining hospital. The introduction of an electric air fan, which was effected as little as possible by the steam, was of some assistance. Moreover, the unpleasant fact forced itself upon our notice, that the method of stretching cloths, in the case of weak patients, was not satisfactory, because the heat of the water was not uniformly diffused from below upwards, the lesser quantity of water lying over the cloth cooled off with disproportionate rapidity. Therefore we inserted in the middle a large meshed net, which turned out very useful. We might mention in conclusion also, that the need of a tap for drinking water, in the bathroom, made itself felt: we chose reversible taps, which are enclosed in small boxes on the wall, capable of being locked.

Contrary to our original expectations, we have not made very much use of the portable baths in the five wards, since the baths were mostly

given on account of restlessness, and the patient had therefore to be transferred to the bathrooms. Nevertheless we would not care to give them up, as they were of great service to us now and again, when very feeble patients were in question, or for the giving of a bath in a hurry, in the night time.

Unfortunately the fire clay baths, ordered for the first time in Germany, proved of little service, as they developed after a short time, leaks in the glazing, which kept on increasing. The firm, Villeroy and Boch, who had promised full indemnity, were of the opinion, that it was a question of technical defect, which would certainly be avoided by the new baths to be supplied, and which are now being tested. Since the baths are considerably cheaper than the English ones, and are excellent in other respects, it is to be hoped that they may be restored in Germany without opposition.

The administering of narcotic or soporific remedies we have endeavored to limit as much as possible, still we could not give up the use of them altogether, with due regard for the repose of all the patients, especially in the women's wards, in which the possibility of isolating a patient could not as a rule be done as readily as in the case of men. An additional comparison shewed, that in the case of the women from 50 to 60 patients had daily on an average required somewhat more than two doses of medicine, —in the first degree, veronal, then hyoscin, then in a less degree, trional, and only very occasionally morphine. In the men's wards, doses of this kind were administered only in individual cases, and we hope to lessen the use also in the case of the women.

With the erection of water closets in the sick rooms, we have had excellent results; we would not care to give them up again. The superintendence of the sick room is thus seen to in the most suitable and simplest, as well as at the same time, most reliable manner. Since the closets are behind light, low Spanish walls, their use is not very noticeable, and annoyance from the smell was not once noticed, owing to the plentiful supply of water. It was, however, necessary to construct the floor surrounding them of cement, in order to prevent the penetration of urine into the joints.

We can, generally speaking, be contented with the behaviour of the attendants. Although the pay is by no means particularly high, we have not had to change them very often. Careless breaches of duty occurred but seldom and in the main at first. Several attendants have married. We ascribe these relations, which are always favorable in the case of a large city, in the first instance, to the circumstance, that the care of the sick from the reasons mentioned before, has lost a great part of its unpleasantness and annoying peculiarities; above all, violent methods and flogging have almost entirely disappeared. It is therefore of importance, that the attendants as well as the sisters should have their own rooms, and not be disturbed at night, with the exception of those who are necessary, along with the night watches, as reserves in the wards, and to take their place on duty. We are moreover as generous in the granting of leave of absence as is compatible with the care of the patients, the only stipulation being that no one may return intoxicated to the clinic. The night watchers who continue for 14 days receive as well as entire freedom from work during the day, a slight increase of remuneration, which is forfeited as soon as a neglect of duty is noticed.

Visits are permitted to our patients as often as possible, of course only after permission is given by the doctor. No means are so suitable to dispel the prejudices against asylums for the insane as numerous visits. The accounts given by the inmates of their impressions of the asylums are much worse than anything, which the visitors could experience there them-

selves. We have also even permitted visits to the continuous baths. No inconveniences worth mentioning have arisen from granting access to the clinic, from which we have excluded only curious people, disturbers of the peace and drunkards. Regular hours for visiting are permitted three times in the week, but even outside of these hours, no particular difficulty is met with by the visitor.

We have at the present time four University teachers engaged in the clinic. Last year they gave lectures on the following subjects:—

Prof. Kraepelin.—Psychiatric Clinic, 2 hours twice a week in the winter of 1904-5, summer 1905, and winter 1905-6.

Forensic-psychiatric practice for doctors and jurists, 2 hours a week in the summer of 1905 and winter of 1905-6. This was visited by a number of judicial officials.

Introduction to the Psychiatric Clinic, in the winter of 1904-5, one hour.

The alcohol question one hour, summer 1905.

Prof. Gudden.—Topographical Anatomy of the brain, one hour in all three terms.

Forensic Psychiatry for doctors and jurists, one hour in the winter of 1904-5, and in the summer of 1905.

Criminal Psychology, one hour a week for doctors and jurists in the winter of 1905-6.

Psychiatric Poly-Clinic, 6 hours a week in all three terms.

Dr. Goupp.—Criminal Psychology, 1 hour a week in the summer of 1905.

Introduction to Experimental Psychology, 1 hour summer of 1905, and winter of 1905-6.

On Measurements of Psychical limits, 1 hour summer of 1905.

Dr. Alzheimer.—Normal and Pathological Anatomy of the brain mantle, 1 hour in all three terms.

Introduction to the Psychiatric Clinic, 1 hour summer of 1905.

Brain and Mind, 1 hour in the winter of 1905-6.

Besides, Kraepelin, Goupp and Gudden gave lectures for military doctors. Goupp a course on Experimental Psychology for professional colleagues, and Alzheimer a course on Histological Methods for the investigation of the brain, in the autumn holidays of 1905.

Kraepelin gave lectures in the two winter terms on Clinical Demonstration for medical practitioners.

The work in the laboratories for Experimental Psychology was conducted by Kraepelin assisted by Goupp.

Kraepelin lectured publicly on the effect of alcohol on the mind and on the causes of mental derangement.

Goupp on suicide.

Our means of instruction was improved by a cinematographical apparatus for projection for which Weiler prepared a number of maniacal, excited, Katatonic patients.

Scientific Apparatus.

The appliances for the carrying on of scientific investigation could at first only gradually be got into operation, after the care of the sick had been first of all directed into the proper paths. The anatomical laboratory was brought to a certain perfection quite early, since the needs here could be anticipated beforehand, and could moreover be established without parti-

cular difficulty. Thirteen places for workers were provided, which were for the most part continually occupied.

The questions worked out were as follows:—

Altzheimer.—Changes in the brain in the case of Amaurotic Idiocy, a peculiar disease in the brain mantle.

Ranke.—A peculiar hindrance in the development of the brain mantle (*Status Verrucosus*.)

Investigation into the brain of syphilitic new-born children.

Economo.—Lectures on the normal anatomy of the Ganglion cells.

Janssens.—On a peculiar case of Progressive Paralysis.

Baroncini.—A kind of disease of the brain mantle which has heretofore not been described and somewhat similar to those of paralysis. On Pellagra.

Narbut.—On experimental and human Rabies.

Becker.—Investigations of the formation of the Ganglion cells.

Fuller.—On Golgi's Network.

Moers.—On the changes of the fibrils after tying of the aorta.

Perusini.—On the granular cells.

Achucarro.—On Rabies, particularly on the condition of the fibrils and the nature of the pigmented corpuscles.

Hoesslin.—The histological changes in the case of Alcoholism.

Eysath.—Changes of the Glia, particularly in the case of Dementia Praecox.

Cotton.—Fatty degeneration of the brain.

The contrivance for microscopic photography forms an important supplement to the anatomical workrooms, which has recently so far progressed, that it can be made useful to a large extent. It consists in accordance with the Heidelberg experiences, of a main room, 8 metres in length with an adjoining room for development. The main room is divided into two sections by a partition wall, impervious to the light, the smaller of which contains the apparatus for projections, while in the large one are found boxes containing plates, capable of being rolled on a slide, and on which the picture falls through an opening provided with a shutter. The microscopic picture can be sharply formed without further difficulty at any distance of the box from the opening.

It took considerable time before the equipment of the Psychological Laboratories was complete. Here we had not only to devise a plan suitable to our circumstances, but a great part of the required apparatus had to be specially prepared. In order to be able to begin the work soon, we applied to the Clinic at Heidelberg, which kindly allowed us the use of some of the apparatus required, until it was possible for us to make copies of them. Unfortunately we have not yet succeeded in the case of the writing-balance and the instrument for measuring the depth of sleep. On the other hand a collection of apparatus was invented and prepared. The experimental psychological investigations into mental diseases have found little extension. It is therefore perhaps desirable to give here a short review of the technical apparatus, which the Clinic has at its disposal. We have six workrooms for this purpose, besides a room which has been fitted up for the investigation of the depth of sleep. These six rooms are connected by a three-fold electrical conductor, which permits of placing the apparatus in different rooms in touch with one another. It is fed by a special accumulator battery.

We have at our disposal the following apparatus:—

(a) For investigation of the capacity of apprehension and discrimination.

Pendeltachistoskope for short time expositions, automatic card apparatus and picture frames enclosed by curtain for arbitrary or spontaneous time exposures from one to five seconds.

(b) For psychical time measurements. Morin's apparatus. Groper's lip key. Roemer's sound key. Card changing apparatus.

(c) For the investigation of psychomotor effects. Ergograph, after the Heidelberg model. Writing balance with accompanying apparatus. Sommer's apparatus for recording three dimensional fine movements.

Pneumograph, (breathing).

Edison's phonograph.

(d) For the investigation of reflex movements.

Sommer's reflex multiplier.

Weiler's pupil measuring apparatus.

Lehman's plethysmograph.

The following questions were investigated:—

Linde.—Investigations of the pupil of the eye in psychopathy, hysteria and epilepsy.

Weiler.—Investigation of the pupil of the eye in paralysis and dementia praecox.

Busch.—Investigations of the plethysmograph.

Busch and Plaut.—Influence of prolonged warm baths on psychical phenomena.

Plaut.—Experiments in calculation in case of traumatic neurosis.

Nitsche.—Capacity of apprehension and discrimination in chronic alcoholics.

Nurbut.—Experiments in discrimination in healthy people and patients.

Sterling.—Experiments in apprehension and discrimination in paralytics.

Baroncini.—Ergographic experiments on healthy people and diseased.

Gruhle.—Influence of alcohol on the ergographic curve.

Jolowicz.—Experiments of individual susceptibility to alcohol.

Hirt.—Changes in writing under various conditions.

Goupp.—Measurements of the depth of sleep.

As a sort of attachment to the psychological laboratory, we may refer perhaps also to the equipment for cinematography, although it has been used essentially up to the present only in the production of pictures for demonstration for the Clinic. It may nevertheless in the future make it possible to separate more complex movements for psychological purposes into their individual parts. Unfortunately the application of this apparatus depended upon the sunlight. We hope, however, to be able to solve the question of artificial illumination in a comparatively short time by the use of which the applicability of the cinematograph would be considerably increased.

Of the Clinical Laboratories, the one for the investigation of the blood, was equipped and made use of by Dr. Reiss. Besides occasional blood investigations, in different cases of illness, there was a systematic investigation made into the blood of the delirium tremens cases, in order to test the report advanced by Elsholtz. Dr. Rehm undertook the regular investigation of the cerebro-spinal fluid. So far as it was possible to obtain the consent of relatives, an investigation of all cases of paresis as well as those of brain syphilis was made and especially such as offered in any way, diagnostic difficulties. Bad accident cases were never undertaken.

In the chemical laboratory only the most ordinary investigations were carried on: its further development is expected in the course of next year.

Preparations could only be made for real clinical work up to now in the main part, since it presupposed the collection of a more plentiful supply of material for observation. The main features in the history of the patient, as have already been done in Heidelberg, were described on numbered cards, which made possible a quick review of the individual cases. There were two copies made of each card, one of which was made use of in the clinical work, while the other was preserved in the archives to serve as a foundation for the renewal of cards which had gone astray. The example used for work was arranged according to diagnosis, the example preserved in the archives, in alphabetical order. Special cards were also employed for different uses. Dr. Plaut made use of such for the examination of the children of drinkers, Dr. Hermann for the collection of reports in the case of the children of paretics. Dr. Reiss filled out a large number of cards with the clinical condition of those suffering from delusions in different illnesses; he made also an investigation with the help of the cards of the psychical condition of a large number of drunkards sent to us, during and after the expiration of the carouse. Dr. Goupp finally made regular records of would-be suicides. Dr. Rehm prepared life histories of all the patients brought to us suffering from melancholia, in order to obtain a foundation for the investigation of the cause of the disease. Dr. Litchenberg made considerable collections of the economic relations and criminology of drinkers received by us, which were likewise partly preserved in diagram.

Thanks to the friendly co-operation of the War Office, it was possible to carry out an investigation of the knowledge and capability of 500 soldiers, which was to serve as a valuable foundation for estimating weakness of mind. Questions such as one very often employed in examinations of this kind, and also in the investigation of the mentally weak, were given on a certain day to that number of soldiers, to be filled out, and great care was taken that no outside influence could be brought to bear upon them. This extensive material will be worked out by Dr. Hermann.

The scientific life of the Clinic was stimulated by common investigations of particularly difficult cases, which took place with some interruptions, once a week when the reports were brought in. Besides the doctors under the same roof, the doctors from the other institutions in the neighbourhood of Munich were also present. At these meetings outside questions were discussed as well as investigations made by us. The subjects treated were as follows:—

1. *Alt.*—On the origin and treatment of epilepsy.

Alzheimer.—Report by Piles. Attempts to cure paretics.

2. *Reiss.*—Report by Turk. Lectures on clinical haematology.

Economo.—Report by Raimann, hysterical mental derangements.

Kraepelin.—Report by Hahn, relation between false reactions and associations of sound.

3. *Weiler.*—Report by Bumke, defect of the pupil in the case of the nervous and the mentally diseased.

Alzheimer.—Anatomic reports of Amaurotic idiocy with demonstrations.

4. *Vocke.*—The care of the mentally diseased, idiots, epileptics and drinkers in Upper Bavaria.

Goupp.—The work of the Zurich School on association experiments on the healthy.

5. *Ranke.*—Anthropometry and Psychiatry.

Busch.—Report by Ebert, and Meumann on some fundamental questions of the psychology of habit in the region of the memory.

Goupp.—Report by Bonhöffer, the pathological states of mind.

6. *Dreschfeld*.—Report by Stier, desertion and absence without permission.

Goupp.—Report by Heilbronner, contribution to clinical pathological investigation.

Goupp.—Report by Vanvleuten, hysterical asymbolism.

Busch.—Report by Berger, Plethysmography.

7. *Alzheimer*.—Results of work in the anatomical laboratory.

Goupp.—Report by Frese, Princess Louise of Cobourg.

Rehm.—Further investigation into lumbar puncture.

8. *Kraepelin*.—Psychiatric report of a journey to Bosnia, Athens and Constantinople.

Nitsche.—Report by Thalbitzer, Melancholia and depression.

Plaut.—Report by Aronade, Alcohol Psychosis in Freiburg.

9. *Goupp*.—Report by Zeihen, Psychopathic Constitution.

Reiss.—Report by Liepmann, the left hemisphere and its treatment.

Luetge.—Report by Jacquet, Subcutaneous injections of sea water in treatment of the mentally diseased.

Rehm.—Report by Hauck, condition of the blood in syphilis cases.

The following scientific lectures were also given:—

Alzheimer.—Paralysis and lues of the terminal arteries. Assembly for the German Society for Psychiatry in Dresden, Reference, *Neurologisches, Zentralblatt*, XXIV., 544, 1905.

Kraepelin.—Disputed points in Clinical Psychiatry. Assembly of the Bavarian doctors for the Insane in Munich, *Zentralblatt für Nervenheilkunde*, 1 VII., 1905.

Goupp.—States of depression in advanced age. Assembly of the Bavarian doctors for the Insane in Munich.

Alzheimer.—Does the process of disease in the case of all mentally deranged persons approximate to the anatomical state? Assembly of the Bavarian doctors in Munich, 15 VII., 1905.

Gudden.—Physiological and pathological drowsiness. Assembly of the Bavarian doctors for the Insane in Munich. *Archive für Psychiatric* XI., 989.

Weiler.—Demonstration of a new apparatus for measuring the pupil. Assembly of the Bavarian doctors for the Insane in Munich. *Zentralblatt für Nervenheilkunde*, 15 VIII., 1905.

Busch and Plaut.—Experimental investigations of the effect of continuous warm baths on simple psychological phenomena. Assembly of the Bavarian doctors for the Insane in Munich. *Zentralblatt für Nervenheilkunde*, 15, VIII., 1905.

Rehm.—Further information with regard to the lumbar puncture.

Ranke.—On a special form of inhibition in the development of the large meninges.

Alzheimer.—On Amaurotic Idiocy.

The following works were published:—

Goupp.—One sided Hippus in the case of progressive paresis.

Kraepelin.—Introduction to the Psychiatric Clinic.

Goupp.—On Suicide.

Gudden.—Report of two cases of hallucinatory psychosis, produced entirely by the misuse of beer.

CLINICAL REPORT.

1. PATIENTS.

The number of patients admitted in the last two months of the year 1904, amounted to 261, 156 of whom were men, and 105 women. In the year 1905, 1,600 patients were admitted, 990 men and 610 women; the preponderance of the men was occasioned by drinkers and epileptics. Taking each month separately, the number of admissions were as follows:—

	1	2	3	4	5	6	7	8	9	10	11	12
Men.....	67	82	67	68	87	72	77	89	95	93	99	94
Women.....	48	47	54	43	58	54	43	57	47	54	51	54
	115	129	121	111	145	126	120	146	142	147	150	148

If we add together the numbers for the quarter year we obtain:—365, 382, 408 and 445. This shows a quick increase in the number of admissions, as soon as the opportunity presented itself for the lodging of the patients.

The number of the days of attendance amounted to:—5,184 in the year 1904; 2,710 for men, and 2,474 for women. Of these, 98 fell to the share of the first class of nurses; 352 to the second, and 4,734 to the third. In the year 1905, the days of attendance amounted to:—19,949 for the men, and 19,562 for women. Total 39,511. The difference for the days of attendance for both sexes is relatively trifling in proportion to the number of admissions, which is a sign that the preponderance of the male patients was occasioned by such troubles as required only a very short residence in the institution.

The following is a table of the number of patients cared for in the Clinic, with their diseases. Of course each patient is only counted once, even if he had been admitted a number of times.

Kinds of diseases.	1904.			1905.		
	Men.	Women.	Total.	Men.	Women.	Total.
Dementia Praecox.....	19	28	47	100	123	223
Paresis.....	16	11	27	80	39	119
Brain lues.....		1	1	3	3	6
Arteriosclerosis.....	3	4	7	24	12	36
Senile Dementia.....	4	4	8	19	23	42
Maniacal Depression.....	11	2	13	25	70	95
Alcoholism.....	25	7	32	253	31	284
Epilepsy.....	19	3	22	128	43	171
Hysteria.....	10	8	18	40	64	104
Traumatic derangements of mind.....	4	4	8	26	23	29
Psychopathy.....	12	5	17	51	47	98
Imbecility.....	5	1	6	14	11	25
Idiocy.....				5	1	6
Different diseases.....	4	2	6	14	20	34
Not diagnosed.....	7	7	14	49	34	88

From this summary it is plainly to be seen that in Munich, as in the asylums of all large cities, alcoholic mental derangements are the most numerous. In the second degree comes dementia praecox, which in large institutions and still more so in less cultured countries, furnishes the main number of patients. Epilepsy occupies the third place, the preponderance of which, in the case of the men, shows that it owes its origin to alcoholism. Then comes paresis, and after that hysteria and psychopathy and finally maniacal depression. All the other forms of disease play a relatively trifling part. A not inconsiderable number come under the head of "not diagnosed," namely, cases which are open to doubt. Four of these from the year 1904, and 19 from the year 1905, were afterwards accounted for.

II. ALCOHOLIC MENTAL DERANGEMENTS—KRAEPELIN.

The number of patients suffering from alcoholic mental derangements amounted in the year 1904 to 32: 1905 on the other hand to 284.

Kinds of diseases.	1904.		1905.	
	Men.	Women.	Men.	Women.
Acute alcoholism or intoxication.....	4	1	47	.....
Alcoholism.....	4	2	44	6
Chronic alcoholism.....	12	3	124	19
Delirium tremens.....	5	.....	25	1
Alcoholic psychosis.....	.....	.....	5	.....
Korsakoff's disease.....	.....	1	7	5
Dipsomania.....	.....	.....	1	.....
	25	7	253	31

These cases, which we have defined as simple intoxication or alcoholism acute, are those in which neither examination, nor the previous history of the patient gave definite indication of the existence of alcoholic derangement; it is certain that there were among them, not only those, who were drifting toward chronic alcoholism, but also those who were already drinkers, in the clinical sense, without its being recognised, especially as these patients, were as a rule, dismissed on the next day, after subsidence of the acute effects of the alcohol. In by far the greatest number of cases sent to us in an intoxicated condition, it was a question of regular chronic alcoholism. The occasion for bringing these persons in to the clinic was the intelligent police rule, that for the avoidance of accidents and inconveniences of all kinds, helpless or noisy drunks should no longer be brought, as before to the police station, but to the Psychiatric Clinic. We see here, that the police, in virtue of their great practical experience with intoxicated persons, take a more correct view than our administration of justice, which cannot be brought to admit, that a poisoning by alcohol is a mental derangement. He, who wishes to convince himself of this, can do nothing better than observe and examine the intoxicated patients transmitted to us. They belong to the most noisy and most acute cases of mental derangement, which are brought to us, and often give considerable trouble to the attendants; except for them the quietness at night on our wards would be much more perfect. If this experience already places in

the proper light, the usefulness of the police ordinance referred to, it becomes much more apparent, when we investigate the mental state of the drunkard, as Dr. Reiss has been systematically doing for some time.

These tests the result of which will be published later on, show clearly, that very severe mental derangement exists in a very large number of cases, which make our legal punishments for intoxication appear in an extremely peculiar light; especially the numerous sentences passed for acts committed while under the influence of liquor.

It has often occurred, that intoxicated persons were at first mistaken for paralytics or maniacs, until this diagnosis was proved groundless on the following day. The distinction made in the summary between acute alcoholism and simple alcoholism has no particular significance. To the simple alcoholics belong such drinkers as were brought to the Clinic, not on account of the acute action of the alcohol, but of their apparently diseased condition. As a rule in their case the environment was continually in danger, more especially the wife, but in the case of acute alcoholism it was a question of avoidance of work, vagabondage, jealousy, dangerous fancies, attempts at suicide. Seven cases of jealous delusions were noted in 1904 and thirty-four in 1905. There were three cases of attempted suicide in 1904 and twenty-eight cases in 1905.

Relative to the large number of drinkers admitted the rarity of cases of delirium tremens is striking, especially when you compare the conditions in Berlin, Dresden, or even in Breslau. No doubt in Munich this difference is to be traced almost entirely to the gradual decrease of gin drinking in favor of that of beer. Of the admissions in 1904, seventeen drank gin also; one of them in a bet had drunk a litre of gin. In the year 1905, one hundred and ten gin drinkers were admitted. In almost all cases, however, beer was drunk considerably more than gin; pure gin drinkers have scarcely ever been sent to us. As a rule people take to gin drinking, when they can no longer afford to drink beer; along with the diminished quantity of beer, there is drunk, especially in the morning, two to five cents' worth of gin. It is positively stated, that in each case of delirium tremens, Korsakoff's psychosis and alcohol madness, that only beer had been drunk; whether this assertion, however, was to be entirely relied on, we must leave undecided. I have put down here the cases of dipsomania, on account of its pronounced symptoms, although it really ought to be taken up along with epilepsy. The following is a table of the age of the patients on admittance:

1904.	To 20.	To 30.	To 40.	To 50.	To 60.	To 70.	To 80.
Simple acute alcoholism.....	2	1	2	.....	.....	.....	.....
Alcoholism.....	.....	2	8	6	5	.....	.....
Delirium tremens.....	.....	.....	1	2	1	.....	.....
Korsakoff's Psychosis.....	.....	.....	.....	.....	1	.....	.....
1905.							
Simple acute alcoholism.....	14	15	9	2	5	1	.....
Alcoholism.....	1	39	60	61	24	5	2
Delirium tremens.....	.....	2	12	9	3	.....	.....
Korsakoff's Psychosis.....	.....	.....	1	5	5	1	.....
Hallucination and dipsomania.....	.....	.....	3	3	.....	.....	.....
	15	56	85	80	37	7	2

Unfortunately it is impossible in the history of our patients to state definitely, when they were to be considered as drinkers in the clinical sense, *i.e.*, exhibited the first permanent effects of alcohol misuse. As a rule it would probably be a number of years before they were brought to the Clinic. This seems to be the case, as the majority of our alcohol patients had already passed the 30th year, and as delirium tremens, which occurs only after years of heavy drinking, appeared most often about the same period of life as that of alcoholism. On the other hand, simple cases of intoxication (acute alcoholism) occur almost always before the 30th year, usually before the 20th year, although they are only too often the incipient stages of a growing chronic alcoholism. On the other hand Korsakoff's psychosis, the worst form of alcoholic disease, virtually does not occur until the 40th year, whether it is that as a rule a very long and continuous misuse of alcohol must precede, or that the initial change of life especially favors its origin.

1904.	Unmarried.	Married.	Widowed.	Separated.
Simple Intox. Alcohol Acute	5	.....	.....	.....
Alcoholism	8	12	1	.....
Alcoholic Psychosis	2	3	.....	1
1905.				
Simple Intox. Alcohol Acute	33	12	2	.....
Alcoholism	89	79	16	9
Alcoholic Psychosis	10	24	3	1

In the frequency of the unmarried among the simple cases of intoxication, as of the married among the alcoholic patients, and especially among the patients suffering from alcoholic psychosis, we have first of all to take notice of the difference of age. Whether the relatively large numbers of widowers and widows or divorced, among the more severe cases of alcoholic disease, has a connection with their greater age, or also in a certain degree reflects the protective influence of marriage, as well as its destruction by alcohol, we cannot for the present say, owing to the small numbers, but can probably determine, when we have larger numbers to deal with. I have, however, certainly often got the impression in the investigation of individual cases, that by no means seldom, alcoholism, with its economic evil effects, considered along with other inclinations of less importance, has hindered the foundation of a family.

We could find out very little of hereditary tendencies, owing to the short time of residence of the patients in the Clinic, and to the fact that they were little inclined to give the doctor authentic information. Among the drinkers of the year 1904 were 4, whose father or mother had also been addicted to drink. Among those of the year 1905, on the other hand, 48, *i.e.*, 17 per cent., a number which confirms the bad effects of alcohol upon posterity. The investigation by Dr. Plant of the children of our drinkers gives additional information. Twenty-nine families were examined, and in these occurred 33 miscarriages. Of the 183 children born, 60 (32.7%) died in the first year, and later 20 (10.9%), so that 103 were still living. Of these, 98 were personally examined, 35 (35.7%) proved nervous and psychopathic; for certain, 2 epileptic and probably 6 (alto-

gether 8.1%). Twelve (12.2%) were imbecile and 3 idiotic (3%). In all, 58 children (59%) were mentally unsound. Of the remaining 40 children, 6 were weakly and did not develop properly, 7 rachitic, 3 scrofulous, 1 tubercular, while 23 shewed no sign of disease. Signs of degeneration (malformations of the skull, ears, teeth and gums) occurred in the case of the psychically unhealthy children in 31 cases, in the case of the bodily unhealthy in 4 cases, in that of the bodily and mentally unhealthy children in 12 cases. The following is a table of the alcohol patients for the individual months of the year, 1905:—

DEBAUCH IN ALCOHOLIC SUBJECT.

	1	2	3	4	5	6	7	8	9	10	11	12
Male	12	18	14	17	20	17	15	17	20	26	30	37
Female.....	1	2	3	.....	2	2	4	5	4	2	6	.....
	13	20	17	17	22	19	19	22	24	28	36	37

ALCOHOLIC MENTAL DERANGEMENTS.

	1	2	3	4	5	6	7	8	9	10	11	12
Male	2	3	2	3	2	7	9	7	4	6	2	1
Female.....	1	.....	.....	1	.....	.....	1	.....	2	.....	.....	1
	3	3	2	4	2	7	10	7	6	6	2	2

It is not at all improbable that the time of year with its climate and social influences accounts, to a certain extent, for the frequency of alcoholism acute. If we add together the number of patients admitted in every quarter of a year, we obtain the figures:—58, 71, 88 and 101. From this it is plainly to be seen that we have to do with a gradual increase of admissions, which allows for fluctuations of another kind, which were present. This is to be explained by the custom, gradually becoming adopted, of bringing intoxicated persons without more ado into the Psychiatric Clinic.

The duration of the residence in the institution, in the case of the alcoholic patients, was generally somewhat short, since, according to the whole adjustment of the Clinic, it was not customary to carry on the treatment beyond the time of acute derangement. The intoxicated patients were therefore, as a rule, dismissed on the same day, or on the day following. The delirious ones, after the expiration of the delirium, though we were perfectly aware of the inadequacy of this treatment. Only in cases of distinct mental derangement, or where there was common danger, and in the few cases as well in which the patients themselves could be induced to take a longer treatment, the residence in our Clinic was continued, until they could be conveyed to another institution, which was, in only two cases, an inebriate asylum, since we had not one of this kind in Bavaria.

A more careful examination into the relations gives the following summary:—

Time of residence.	1-2 days.	3-30	31-90	Over 90
Alcoholism Acute	42	5	.....	.....
Alcoholism Acute in Alcoholics	93	46	4	.....
Alcoholism	6	31	12	1
Alcoholic Psychosis	1	33	12	4

Of all the chronic alcoholic patients received by us, only 39 directly reached hospital, indeed almost all were received from asylums for the insane, besides some few who were sent from other hospitals. With a few trifling exceptions these cases were entirely hopeless, and there was no possibility of their being treated privately. The lamentable inadequacy of our remedies at that time for the treatment of alcoholic patients was here very plainly to be seen. When we leave the cases of simple intoxication out of the question, among whom a not inconsiderable fraction is drifting towards chronic alcoholism, we are speaking here of all other patients, who have become victims of alcoholic disease, beyond all hope of cure, if they are not protected from the further use of alcohol. In reality we are not in a position to-day to give them any efficient help, but must look on with folded arms at their ever increasing bodily and mental degeneration. It is not until the most severe and incurable derangements make their appearance, that we are able to send them to institutions, and then not in order to cure them, but only to protect society from them. The erection of places for the cure of drunkenness will bring about a certain improvement in these relations, which are a disgrace to a civilized country: the main work, however, of that there can be no doubt, must be in the way of prevention.

3. THE SOCIAL SIGNIFICANCE OF ALCOHOL PATIENTS. (LICHTENBERG.)

In 1905 the Psychiatric Clinic admitted for treatment 1,594 patients, six hundred and twenty-eight (39%) of these cases were admitted for Alcoholism, that is they would never have become objects of our observation and treatment if their modes of life and environment had been free from alcohol. These six hundred and twenty-eight cases comprise five hundred and eight individuals, four hundred and twenty-nine being admitted once, sixty-one twice, eleven three times, two four times, three six times, and two nine times. Our admission cards show for two hundred and ninety-six of them acute or chronic alcoholism, or some form of Alcoholic Psychosis, while the remaining two hundred and twelve cases are included under the headings Epilepsy, Psychopathy, Imbecility, Hysteria and Traumatic Neurosis. Of these latter 21 are also included under the headings of Arterio Sclerosis, Dementia, Apoplexy. Nevertheless after the most careful examination of all the clinical and other documents accessible to me I must call the whole five hundred and eight merely alcoholic patients. If we count along with these, sixteen patients who were at the beginning of the year under clinical care for alcoholism, we treated in the year 1905 five hundred and twenty-four alcoholic subjects, of whom I am now giving a report.

What then was the result of the admittance of these alcohol patients? Approximately $\frac{1}{2}$ were brought by the police. These were for the most

part, intoxicated persons, who were found in a helpless condition, in the street, in ditches, in yards, in inns, etc., and were brought in by the Ambulance Corps. Perhaps another $\frac{1}{3}$ were brought to us by their friends, in part with the help of the Ambulance Corps, and the Police. These patients had either become an unbearable torment to their families, or they seemed very ill mentally, or so called "nervous," although their illness had not been rightly named. Of the last $\frac{1}{3}$ a large number sought for admittance to the Clinic, in order to have their state of mind looked into, being under judicial investigation; many others came of their own accord, in order to be relieved, of a supposed severe nervous disease, of pains in the head; others again from various other reasons, but only a very few of our patients knew that alcohol was the real cause of their suffering. I recollect reading of only 3 cases, who sought for admittance to our Clinic, "in order to get rid of the alcohol."

From the foregoing, and from the statistical report of our alcohol patients given at the conclusion, it is established beyond a doubt, that the experiences of our Clinic, and my inferences, give no account of the alcoholism prevalent among the better classes. Among the so-called cultured, and above all among the academically cultured, which authorities on the alcohol question, not without right, make responsible for the alcoholic depravity of our people, the chronic alcohol sick and diseased of this class, are treated in private practice, in private sanatoria, etc., for whatever bodily, mental, and nervous diseases they may have. Many of them, from their comfortable circumstances, escape those consequences of alcoholism, which bring the poor man into the hospital Clinic, Psychiatric institution, or asylums for the insane.

The ages of the 524 alcoholic patients, 446 men and 78 women, were as follows:—

—	Up to 19.	20-29.	30-39.	40-49.	50-59.	60-69.	70-79.	80.
Men	16	119	130	106	59	15	1	.....
Women	5	13	18	25	12	4	.....	1
	21	132	148	131	71	19	1	1

During the year's report our 524 patients (alcoholic) required 6,913 days of attendance, about 17.5% of the 39,511 days of attendance for all the patients in the Clinic.

Of these, 39,511 days of attendance, 33,907, namely, about 85.8%, were devoted 3rd or poorer class of patients. While of 6,913 days of attendance for alcohol patients, almost 97%, namely, 6,696 were devoted to the 3rd class, and only 3% to those in good circumstances, a further proof that the alcoholism of the "better" classes does not appear in our clinical reports.

The cost of attendance on the 3rd class, is for all patients of the year 1905, 100,106.50, marks, (1 mark 24c., 100 pfennings 1 mark). The cost for the 524 alcohol patients was 17,315.20 marks, the latter therefore cost about 17.3% (over $\frac{1}{2}$) of the total expense.

Of the 6,913 days of attendance of alcohol patients, 217 in the first and second classes, 1,067 in the 3rd, paid for themselves (either from their own or their relations' incomes). The cost of the remaining 5,629 days of attendance had to be borne by public organizations, political and social.

Of the 6,696 days of attendance on the 3rd class of alcohol patients, we find that 1,067 days of attendance on 3rd class of patients, (almost 16%), were paid for by the alcohol patients themselves with 3,203 marks, (almost 84%), whilst 5,629 days of attendance on the 3rd class of patients, (almost 84%), were discharged by society with 14,113.20 marks (81.5%).

Of the total cost of attendance for the 3rd class for the year 1905, social organizations paid 100,106.50 marks, ($\frac{2}{3}$ of the total receipts of the Clinic), for alcohol patients alone 14,113.20 marks, *i.e.*, 14% (almost $\frac{1}{10}$) of the total cost or about $\frac{1}{10}$ of the year's receipts of the Clinic.

Of the 224 alcohol patients cared for in the year 1905 the following paid their own expenses, one in the first, three in the second, 114 in the 3rd class. These 121 paid all expenses. One in the 3rd class most of the expense, 4 in the 3rd class for a smaller part, therefore for themselves 122 (23.3%); others allowed friends to pay for them, 402 (17.7%)—including the 4 who made the smallest contribution.

	Number.	Days of Attendance.	Cost.
			Marks.
Patients themselves	122 (106 men 16 women)....	1,067	3,202
Sick Relief Society	161 (140 " 21 ")....	1,521	3,561.80
Fraternities and Imperial Insurance Bureau	7 men	83	249
Authorities	7 "	59	177
Poor Relief	227 (186 men 41 women)....	3,966	10,125.40
	524 (446 men 78 women)....	6,696	17,315.20

Of this the share of the Local Sick Relief Society in Munich was 2,697.20 marks for 1,200 days of attendance, of other Sick Relief Societies in Munich 528.60 marks for 209 days of attendance, of other Sick Relief Societies 336 marks for 112 days of attendance, and of the Poor Relief of Munich, 1,936.40 marks, for 2,236 days of attendance, of other Bavarian Districts 3,080 marks for 1,027 days of attendance, and lastly, of districts outside of Bavaria, 2,019 marks for 703 days of attendance.

It must also be observed that the cost of attendance for each person per day was not quite 3 marks, being for the Poor Relief of Munich, Local Sick Relief Society, and some other Sick Relief Societies in Munich, 2.20 marks.

These numbers show only a small fragment of the direct burden through alcoholism to society and its social organizations.

This is confirmed by many other organizations, and also by the following facts:—Of the 628 alcohol patients admitted in the year 1905, 282 only remained for one day. This is easily understood, when it is considered that the majority of the 206 suffering from acute alcoholism, and the remaining 97 epileptics and hysterical patients, admitted for the most part after accidents of rows, were discharged on the next day, when they had recovered from the effects of the alcohol. Of the 429 alcohol patients admitted in this year only once, 246 remained from 1 to 3 days in the Clinic. Of these not less than 117 had previously received punishment, 17 but once, 35 10 or more times, the whole 117 together 1,098 times, namely on an average of 9 times. These facts we owe mainly to a later inspection of the Police reports; for the majority of these tem-

porary patients, which had little influence on the budget of our clinic, these reports were of great diagnostic and practical value. These communications are fitted to throw a dreadful light on the alcohol burden on society, arising from the apparently harmless cases of acute alcoholism, which are often regarded from a humorous point of view.

We might also show the burden to society from the past history of our patients: of the 524, 113 had already been under clinical treatment on account of the psychical disturbances due to alcohol poisoning, many of them repeatedly (55 once, 46 two to five times, 12, 20 to 70 times), and these required at least 5,928 days of attendance. This does not include non-clinical treatment, nor can the number of those who paid least any more than the number immediately following, be regarded as complete.

Of the 524 alcohol patients of the year 1905, at least 47 had been cared for in former years in asylums, (31 once, 7 twice, 5 three times, 3 four times, 1 ten times), where they were attended to at least for 21,722 days at a cost which I cannot compute.

We have already referred to the criminality of a part of our alcohol patients, 265 (more than the half) of the 524 patients cared for in the Munich Psychiatric Clinic in the year 1905 were judicially punished; 34 once, 29 twice, 30 three times, 19 four times, 10 five times, 15 six times, 12 seven times, 11 eight times, 12 nine times, 11 ten times, 6 eleven times, 8 twelve times, 5 thirteen times, 7 fourteen times, 4 respectively 15, 16, 21, two respectively 17, 18, 19, 24, 29, 30, 36, 40 times; 3 respectively 22, 26, 28, 48 times, one respectively 20, 23, 25, 31, 34, 35, 38, 39, 42, 45, 50, 54, 62, 66, 79, 91. The whole 265 were sentenced altogether 2,853 times, each one on an average of 11 times.

Of the 238 men, 41 received punishment before the 18th year, (1 at 10 years, 2 at 12 and 14 years, 3 at 13, 6 at 15, 10 at 16 and 19, 16 at 17), of the women, (1 at 15, 16, 20 and 2 at 19).

It must be left to the jurists and administrative officers to estimate what an economic as well as moral burden to society this excessive culpability of alcohol patients is, and what grief, cares, misery, repentance, despair of parents, children and wives lie behind it.

I have found out moreover, that fifty of those 524 alcohol patients attempted to commit suicide. Twelve made repeated attempts, and in 1906 one succeeded after several vain attempts, in making an end to his misery.

Of the few among our patients, who being comparatively well off, had earned their living as merchants, or in trade, 16 had become bankrupts, several of them repeatedly. Six of those who were still in easy circumstances were declared incompetent (on account of mental weakness or dissipation).

Let us now turn to the history of our alcohol patients, and observe the manner in which they earn their bread, their occupation or their non-occupation.

The most mixed group is that of the paying patients, namely, of the patients, who paid for their own maintenance, because their means permitted of it, and in part also because they did not care to burden the hospital with the cost of their debauches.

At their head are 14 with an academic education: 3 scholars, 6 dissolute students, 1 professor (artist), 1 engineer, 1 decayed lawyer, 1 District Judge, who received a pension on account of heart and renal disease, 1 catholic pastor, and 1 young practising physician, 2 officers, an old major, and a grey haired pensioned lieutenant, shewing that the uniform is a protection from alcoholism, even as little as an academic education.

Then come 6 officials connected with the state traffic, 4 private officials, 1 policeman, 7 business men, 1 independent manufacturer, and 5 foremen with 17 workmen. Next we have 1 public school teacher, 5 persons engaged in farming and gardening, one male nurse from a private sanitarium for mental and nervous diseases, one dentist, 6 men connected with the alcoholic industry, 1 loafer, 1 tradesman, 1 town traveller, 1 hawker, 2 regular workmen, and 8 odd jobbers. On the one side we find 7 well-to-do, if not wealthy capitalists, namely, private people, on the other side two state pensioners, three accident and two invalid annuitants, and finally 4 loafers, one of whom has lived for many years by writing begging letters.

The Sick Relief Societies and other similar institutions, cared for 144 alcohol patients, in our Clinic in 1905, 53 workmen, 8 persons employed in private traffic, 2 in gardening, 5 in trade, 4 in municipal service. Of these 53 day laborers, 13 had previously been employed as workmen, 7 on the farm, 1 had degenerated from a rich farm owner, to a coal carrier, and 1 had squandered away his manufactory and distillery. Some had tried several occupations without success, and 20 had had from the start no definite occupation. One policeman, 1 soldier, 4 railway officials, 7 private officials, and 4 idle persons complete this group of our patients.

Many of these persons, who have been arranged according to occupation, have already been designated as unwilling to work, unemployed for some time, very irregular in their work, careless, also now and again as offensive in their calling; so in the case of the 186 men, whose cost of maintenance must be paid by the parish, out of their poor relief funds, shiftlessness is the rule. There can scarcely be any talk of really regular employment, and just as little of economic insight. That holds good of the 4 alleged masters and 44 workmen of different trades, as well as of the 10 tradespeople, 2 innkeepers, 2 waiters, 1 gardener, 1 miller and 5 transporters. Of the 54 day laborers, of whom one had been a merchant, 1 an independent foreman, 22 journeymen, 4 employees of a brewery, 2 agricultural workmen, 4 regular workmen, 2 porters, 2 snow shovellers, 2 navvies, 1 street cleaner, 1 slaughterhouse and brewery employee, and 1 model, are designated according to their latest employment. Among those, who have given up work entirely were 10 pensioners, among whom were 5 war and 3 military pensioners, the 12 accidents and 6 invalid annuitants, who allowed themselves to be cared for in our Clinic, at the expense of their parish, 1 comedian, 1 vaudeville actor, 1 broken down actor, 5 escaped inmates of institutions, with 27 loafers complete the list. To these add 7 former workmen, a dissolute student, a former officer of noble family, who had distinguished himself in war, but had ruined himself by leading the life of an adventurer, 5 habitual criminals, 2 keepers of prostitutes, 10 vagabonds, and 1 "parasite."

I do not maintain that alcoholism is the only cause of economic and moral misery, but that it is the most important one, and can be easily done away with if taken in time. Who would attempt to deny that heredity, training, environment, sexual life (this last more especially in the case of the women alcohol patients), play a part not to be under-rated, in bringing about the mental degeneration of our alcohol patients?

It is no doubt of importance, that 23 male and 9 female alcohol patients were born out of wedlock, that of the former 1 had an imbecile mother, one an idiotic mother, and 3 had mothers, who were prostitutes.

Sixty-nine men among our alcohol patients were sons of drinkers, two had mothers who drank, 7 came of parents given to drinking, 8 from decided drinking families.

Of the 78 women alcohol patients, 28 had fathers who drank, 1 a mother given to drink, 4 came of drinking families.

In the case of 50 of our alcohol patients I secured information also as to their means of livelihood. Four of our men drinkers and 2 of our women drinkers had fathers, who were doctors, the fathers of 1 male drinker and 1 female drinker, 1 head forester. 3 male alcohol patients were officers, (1 general, 1 captain and 1 lieutenant).

The necessity that our governing class and the academically educated among us, especially we physicians, should be better instructed on the alcohol question, cannot be more fitly proved, nor could anything show more clearly, how decidedly ignorance brings with it its own punishment.

Let us cast a glance in conclusion at the fate of the 524 patients treated in the Psychiatric Clinic at Munich for the year 1905.

On the first of January, there were still being cared for in the Clinic 9 men, 4 women, of whom soon afterwards 8 (5 men, 3 women) were transferred to suitable asylums for the insane; 3 (2 men, 1 woman) were dismissed, 2 men (incurable alcohol cases, who pay for themselves), were still being cared for in our Clinic. When I had finished collecting my material (end of July, 1906), of the remaining 511, seven died from arterio sclerosis, two from Korsakoff's psychosis, one from epilepsy, total ten. Five were sent back to the asylums from which they escaped. Of those committed to the asylums, five had been committed twice, and seventy-four were first admissions, total seventy-nine. Of the seventy-four, who had been committed once to the asylums, ten had been admitted twice to our clinic, six three times, one four times, and one nine times.

In Institutions for the mentally defective	1
Epileptics	2
In Sanitaria for inebriates	4
In hospitals	17
To the police	4
Dismissed	386
Returns up to July, 1906 (11 once, 2 twice).....	13

4. DEMENTIA PRAECOX—GAUPP.

The large group of diseases, which is to-day comprehended under dementia praecox covers, as is well known, symptomatologically very different forms of disease, the affinity of which we base mainly on a change into peculiar mental dullness, which is common to all. A yearly report, which is composed a short time after the admission of the patients has therefore to struggle with peculiar diagnostic difficulties, and we are quite well aware, that we are not always treading on firm ground, when we diagnose cases, during their short residence in the clinic as dementia praecox. Although the clinical form did not make any sure diagnosis possible, we have given this name to many cases, recollecting that in similar previous cases our diagnosis was verified after a whole year's observation.

The anamnesic data are often very insufficient in the case of patients, admitted to a clinic in a large city, whom, as in the case of our clinic, no formality or certificate is required on admission. It is however just in the case of dementia praecox, more especially in the case of chronic, slowly developing forms, which lead to a gradual transformation of the psychical personality, that an exact anamnesis is often indispensable, if the diagnosis is to be sufficiently correct, when the time for observation is short. From this resulted many difficulties in the clinical interpretation of individual cases. What follows can therefore only be regarded as a modest attempt to separate from the large number of patients admitted, those of whom it may be said, judging by the clinical examination at the sick-bed, and by the

often very short time for observation, here is a case, which according to the symptoms probably belongs to dementia praecox. It goes without saying, that we tried in all cases to procure by later investigation a picture of the further course of the disease. But we know from long experience, how unreliable the statements of laymen are, in regard to the state of health of a previous patient, how often for example a tranquility arises or a return of the desire for work, which deceives the relations. They regard this as a sign of improvement or even of recovery, while in reality it may only represent a condition of dull half-wittedness. We are therefore obliged to be skeptical about information obtained in this way, and must never forget, that of the unexpectedly large number of those, whom we have set down as "cured" or "professedly cured," doubtless only a smaller part has ultimately overcome the disease.

SUMMARY OF THE YEAR 1904.

In the time from the 7th of November, (the opening day of the clinic), to the close of the year, nineteen male and twenty-eight female patients were admitted, making a total of forty-seven, whose cases were diagnosed as dementia praecox.

A. Male Patients.

The clinical forms were very different. In eleven cases the beginning had been of a slowly developing character, the disease advanced very slowly, nine of them were in the summer of 1906, still in institutions for the insane. A man 43 years of age, who was ill of a subacute nervous stupor, underwent a so marked remission, that he was designated as cured, and now (summer 1906) has again taken up his previous employment.

A hebephrenic case, a half-witted man patient died of pneumonia. In three cases the further course of the disease was not known. In three other cases the hebephrenic illness arose from imbecility. In one case a previous trauma was given with certainty as the cause; the case differed however in no respect from other cases of hebephrenia. In the case of a 23 year old man, we were doubtful according to the diagnosis, whether it was epilepsy or dementia praecox, the patient had had a great number of epileptic attacks, together with dementia, which was not epileptic, but rather hebephrenic. Two cases can be set down as periodic katatonia, with lucid intervals. Three patients had been formerly very hard drinkers, one of them had also had syphilis.

Age of the Patients on Admittance.

Between 15 and 20 years	3
" 21 25 "	4
" 26 30 "	6
" 31 35 "	4
" 36 40 "	1
At the age of 45 "	1

Age of Patients at the Beginning of the Disease.

Between 15 and 20 years	5
" 21 25 "	4
" 26 30 "	4
" 31 35 "	4
" 36 40 "	1
At the age of 43 "	1

The patient, who did not contract the disease until his 43rd year, suffered from "periodic katatonia" (nervous stupor); he is said to be in good health now, (summer 1906).

B. Female Patients.

The ages of the twenty-eight women patients may be learned from the following table:—

Age on Admittance to Clinic.

Between 15 and 20 years	2
" 21 25 "	4
" 26 30 "	5
" 31 35 "	5
" 36 40 "	5
" 41 45 "	4
" 46 50 "	0
" 51 55 "	1
" 56 60 "	1

Age on Commencement of Disease.

Between 15 and 20 years	5
" 21 23 "	2
" 26 30 "	9
" 31 35 "	4
" 36 40 "	5
" 41 45 "	1
At the age of 56 "	1
Age on commencement of disease not known	1

The patient, who was 60 years of age when admitted to the clinic, represented a non-typical form, whether her case was that of dementia praecox or senile disease with katatonic symptoms, we are not yet able to say.

The cases of a chronic progressive type are almost all still in asylums for the insane, two have died in the meantime. Six patients are ostensibly cured, in every case it was a question of acute nervous excitement, accompanied by complete delusion. Six other cases had lucid intervals, which had begun as acute or at least subacute. Of all the twenty-six patients still living, 13, that is 50%, were still in institutions in the Spring of 1906. The present place of residence of two of them is not known. The paranoid forms, which by other authors would be allotted to chronic paranoia, occurred in patients over thirty years of age (31, 38, 56, 42). I am extremely doubtful, whether the case of the woman fifty-six years of age, who was suffering from chronic-paranoic progressive psychosis had a connection with dementia praecox. The old rule, that the further course of the disease proves so much more unfavorable, the more chronic the whole process was from the beginning, was thoroughly confirmed. To be sure we saw individual patients, who were brought in with quite acute symptoms, become ultimate imbeciles. In the etiology of an imbecile patient, the hebephrenia was for the most part progressive, but not without exception: one woman patient, who was at birth a little weak-minded had a tolerably good remission after an acute hebephrenic episode, but still remained uncured of the hebephrenia. Hereditary taint of a severe

character, (one of the parents mentally diseased), seems to have no real influence on the prognosis of the disease, at least in individual attacks; women with a very bad hereditary taint were dismissed from the district asylum as "cured" after severe katatonic excitement. Hereditary taint was proved in the case of thirteen patients (50%, probably; however, the figures in regard to heredity are larger, as in many cases exact information could not be obtained.

SUMMARY OF THE YEAR 1905.

Number of patients admitted: 100 men, 123 women, total number of cases 223.

Age of Patients on Admission.

	Men.	Women.
Between 10 and 15 years.....	1	1
" 16 " 20 ".....	6	11
" 21 " 25 ".....	25	13
" 26 " 30 ".....	25	29
" 31 " 35 ".....	17	26
" 36 " 40 ".....	13	12
" 41 " 45 ".....	3	7
" 46 " 50 ".....	2	12
" 51 " 55 ".....	4	7
" 56 " 60 ".....	.....	3
" 61 " 65 ".....	1	1
" 66 " 70 ".....	.....	1

Age of the Patients at the Beginning of the Disease.

	Men.	Women.	Total.
Between 10 and 15 years.....	4	1	5
" 16 " 20 ".....	19	15	34
" 21 " 25 ".....	29	23	52
" 26 " 30 ".....	23	31	54
" 31 " 35 ".....	8	23	31
" 36 " 40 ".....	6	10	16
" 41 " 45 ".....	4	7	11
" 46 " 50 ".....	2	6	8
" 51 " 55 ".....	1	6	7
" 56 " 60 ".....	.....	1	1
" 61 " 65 ".....	1	.....	1
Uncertain as to age, but under 40.....	3	.....	3

A. MEN PATIENTS.

Of the one hundred male patients on the register, there were in the spring of 1905 still forty-nine of them in asylums for the insane; two had died, one of whom had committed suicide outside the institution. The present residence of nineteen could not be ascertained, as the catamnesic investigations proved ineffective. Twelve were discharged cured, sixteen

improved, ten unimproved. In four or five cases the course of the disease was progressive. In thirteen cases we had no opportunity of following the further development of the disease. A large number of cases in which the course and termination of the disease remained unexplained, was explained in this way, namely, that many patients were only in the clinic for a short time, and then emigrated to foreign countries. In twenty-seven cases the onset of the disease was acute, sub-acute in sixteen, chronic in forty-five. In twelve cases no information could be obtained in regard to the onset of the disease. In all cases in which there was lengthy remission or cure, the onset had been acute or sub-acute; the patients were youthful, (under 35 years of age). In seventeen cases there was hereditary mental weakness, trauma had preceded the onset in three cases; fifteen patients had been chronic drinkers, without any special alcoholic coloring to the type of the disease. The influence of hereditary taint on the course of the disease was not observed; it was proven in the case of forty-five patients, although on account of the incomplete anamnesis, it would have been found oftener present. The cases in which the disease did not appear until after the fortieth year were of particular interest, namely, seven male patients. The clinical form of these cases was very different, one case, forty-four years old, showed the characteristics of acute periodic katatonia, which finally became progressive. A man forty-three years old showed the peculiar transition of traumatic hysteria into chronic, progressive, paranoid hallucination of the character of dementia praecox. Another case, a male patient showed sub-acute, progressive hallucinations with dull, listless condition; he had been a drinker, and the disease was progressive. Unfortunately we could learn nothing of his present condition. There were three cases, forty-one, fifty, and fifty-three years of age respectively, which presented the form of acute depressive excitement with many illusions, negativism and rapid progressive dementia; one of these cases suicided. Its affinity to dementia praecox seemed very doubtful; the other two cases we were by no means sure of the diagnosis. A sixty-four year old man showed a non-typical form; he had several somewhat short attacks of mental confusion, which resembled katatonic excitement: he is however at present still in a district asylum unimproved, and our diagnosis, that it was a case of dementia praecox could not be verified, as we could not obtain any accurate information about his past history. This case perhaps ought to be counted among the senile psychoses, which assume so many varieties, that it is always difficult, in individual cases, to determine.

B. WOMEN PATIENTS.

Of the 123 women whose cases were diagnosed as dementia praecox, there were in the spring of 1906 still 66 in asylums for the insane; 44 are with their families or have employment; 3 have died; the residence of 10 of them could not be obtained; 16 were designated as cured; 27 were essentially better; 3 remained stationary. In 64 cases the course of the disease was progressive; in 10 cases we learned nothing of the further development. In 62 cases hereditary taint was proved. The striking fact is specially to be noted, that far more women patients than men were at the beginning of the disease over 35 years of age. This surplus of later illnesses is almost exclusively of the character of chronic paranoid forms, which occur much more frequently in the case of the female, than of the male gender, and usually set in after the 35th or 40th year. Its connection with dementia praecox, as is well known, is very much disputed, and it cannot be denied, that many are essentially distinguishable from hebephrenic and katatonic

forms, by the symptomatology and progress of the disease, and also by the final condition. Since, however, this distinction for the present cannot always be made, and does not always present unambiguous marks, the subordination of this whole group is retained under the head of dementia praecox. We had 14 cases of such paranoic chronic psychoses, in the case of women over forty years of age; the course of the disease was progressive throughout; none of the patients are cured, and the most of them are at the present time, still in a district asylum for the insane. There were no real remissions corresponding to the chronic course of the disease in this group.

Acute and sub-acute hebephrenia, which quickly leads to imbecility, occurred by no means oftener in the case of women, than in the case of the men patients. With this form it was always noticed how often it was a question of naturally abnormal beings, either slightly idiotic or psychopathic people; the hebephrenic process of the disease developed in a smaller number quite gradually from this defective inclination, so that the time when it began could not be established with accuracy; the disease set in oftener, acutely or sub-acutely, so that we received the anamnestic statement: from then on a progressive change occurred in the patient.

Unfortunately we cannot give a more accurate analysis, of the individual cases of disease, which have come to our notice during the year, valuable and necessary as this work appears; but the circumstances, that the history of the patients comes from a large number, in part of young doctors, to whom methodical investigations and methods of operation in our clinics were at first somewhat unfamiliar, did not allow any satisfactory investigation in detail, on statistical or in general, on systematic principles.

5. PROGRESSIVE PARESIS (ALZHEIMER). -

In the last two months of the year 1904, 16 paretic men, and 11 paretic women were admitted. During the year 1905, the cases of 80 men and 30 women were diagnosed as paresis.

The large number of paralytics of the female gender is striking. The ratio between the men and women was for the year 1905 almost as 2 to 1. At the beginning of the last month of 1904, it was still somewhat more unfavorable for the women. From no other place have we received information of an equal ratio. We can find a reason for this in the fact, that in Munich extremely large numbers of women are employed in the hotels. Although we did not begin until the second half of the year to make more accurate investigation in this direction, we found nevertheless 7 additional paretics, who had previously been waitresses. These are certainly especially exposed to luetic infection. In addition it is to be noted that these persons very frequently are much addicted to the misuse of alcohol. Fifty-two per cent. of the men, and 35.9% of the women paretics have been drinkers. While we find in the case of the male epileptic, and sufferers from arteriosclerosis, a still higher percentage of drinkers, in no other form of psychical disease, with the exception of alcoholism, is the number of female drinkers so large as in the case of paresis. We must therefore give as a second reason for the unusually high number of female paretics, the unwonted spread of dipsomania. Other observations which psychiatry furnishes show that alcoholism helps to prepare the ground for paresis, in the case of those infected by syphilis.

Although there can be to-day scarcely any more doubt that paresis sets in only after previous luetic infection, it was only in the case of 22 of

the 80 men, and 5 of the 39 women that distinct traces of syphilis were to be found. Our material, which comes for the most part from the lower classes of the people, proves, as has also been emphasized on the other page, very little suited for reliable data in this direction. Only in the case of 15 of all the patients could we obtain more definite information, as to the time of the infection. According to that there were from 4 to 22 years between the infection and the breaking out of paresis, of the 15 cases on an average of 11 years.

In the case of 8 of the 80 men, an accident was responsible for the origin of the disease, either by the friends, or the patient himself. In three of these cases a more accurate investigation showed that symptoms of paresis had already preceded the accident; in two cases the accident appeared so insignificant, that it could scarcely be held responsible for so severe and progressive a disease; in another case it occurred so long before the appearance of the first symptoms of the disease, that one could scarcely believe that there was any connection, and only in 2 cases was there a connection in time between a severe accident and the appearance of the first symptoms of disease. A clinical discrimination could not be made in these cases.

As regards the social environment from which these paretic patients came, we find all classes represented in the case of the men, while in that of the women the lower class predominated to an extraordinary degree: waitresses, seamstresses, women who worked by the day, peddling women, occupations which seemed to be especially exposed to the danger of sexual infection. Some of the paretic women had been previously prostitutes; registered prostitutes were not among them.

The following table gives information as to the age of the patients on admittance:—

Age on Admission.

—	20-29	30-39	40-49	50-59	60-70
Men.....	.....	23	48	7	2
Women.....	2	16	15	4	2

From this it seems that the women contracted the disease on an average somewhat earlier than the men, which is explained by the fact that the members of the female sex are exposed to the danger of a syphilitic infection in their younger years. As regards the diseases after the 60th year, 1 was a 60 year old man, 1 a 62, and 1 a 64 year old woman. Two of these were cases of tabetic paresis, which, as is well known, seldom occurs at this advanced age; the others were demented forms.

With reference to the ancestry of the paretics it was shown, that hereditary taint, with so called functional mental derangement, could comparatively seldom be proved. This was done only in the case of four of the eighty men, and seven of the thirty-nine women. We must, however, bear in mind, that there is great difficulty in securing exhaustive reports in these cases from our material. On the other hand the fathers of four paretics were heavy drinkers, and the fathers of three and the mother of one paretic woman were addicted to gin drinking; four of the paretic

men had fathers, who had died of paresis; the fathers of two paretic women had died of paresis, and the fathers of two others, of spinal and brain disease; besides we received the information that in the case of four paretic women one of their parents had died of apoplexy.

Of still greater interest are the observations with regard to the descendants of paretics of which Dr. Hermann has made extensive investigations. They are to be published later in detail, and we will therefore here only deal shortly with what has reference to the patient, who came under our notice during the year. Of the eighty paretic men, fourteen were unmarried; of eight, the precise family relations are not known, thus leaving fifty-eight who were married.

Of the thirty-nine paretic women eight were married, (of these one had a healthy child, four had a miscarriage, one a child, who died shortly after birth); there is but little known of the circumstances of one of these, so that we can give the results of thirty marriages.

Marriages of Paretics.

---	No.	Sterile.	Ch. born living	Ch. still alive.	Ch. who died.	Ch. born dead.	Mis-carriage.
Man Paretic.....	58	8	146	86	60	13	20
Woman "	30	9	74	35	39	10	27
	88	17	220	121	99	23	47

Children who died, born dead, miscarriages, &c.

Man Paretic.....	93
Woman "	76
	169

We see that in the case of our paretic marriages the number of the surviving children is not so great as that of the parents; the number of the dead, still-born and miscarriages in the case of marriages in which the man was paretic, is greater than the sum of those who were living from the marriages in which the woman was paretic, indeed is fully twice as great. The relatively large number of married women, who are entirely childless is striking, and no one can dispute, that the results are due to luetic infection. The investigation of the children still living shows a striking aggregation of degenerate nervous beings; rachitis, anaemia, convulsions during teething period, backward bodily and mental development, irritable, nervous beings. Nevertheless it is here far more difficult to decide, just how much is due to hereditary lues, inefficient care, poverty, or alcoholism of the parents. We would first require much more extensive investigations and material as to the descendants of other kinds of mentally diseased persons, before they could judge, whether the surviving descendants of the paretics show injury to any particular extent, and in what direction as well. In the case of eight patients there were less than eight days, between the onset of the disease and their admission into the clinic. In the case of twelve patients eight days to four weeks elapsed; in that of ten patients four weeks to three months; in that of seventeen patients three to six months; in that of twenty-eight patients six months to one year;

in that of twenty-one patients one to two years; in that of eight patients three to four years; in that of seven patients five to six years, while in the case of ten patients nothing definite could be learned of the onset of the disease. It is shown by this comparison also, that general paresis seldom commences with severe symptoms, so that even in clinics, where admission is easily obtained, by far the greater number of paretics had been ill from one to two years before their admittance to the clinic. In the case of sixteen men and six women paralytic attacks of different kinds appeared as the first symptoms of the disease. In the case of five men and two women the first symptoms were disturbances of speech. In that of twenty-three men and fifteen women some amnesia and dullness, in that of seven men and two women, megalomania, in that of four men and one woman, states of depression, and in that of five men and three women excitement and restlessness. Among the men there were three patients, who were evidently insane, when they were arrested for theft; one of them had taken with him in an indiscriminate manner, bicycles, provisions, or whatever he could lay his hands on; a woman, evidently insane, committed numerous petty thefts, while another had committed fraud. It was difficult to arrange material under the head of the different clinical varieties, on account of the frequent change in the course of the particular disease. By far the greater number showed the euphoric demented form with individual megalomaniacal delusions. Some also showed the expansive form. The so called "classic paresis" is not uncommon. Among the men there were eighteen cases and among the women three. Six cases among the men and three among the women classified as hypochondriacal depression. In five men and three women the disease took the form of confused noisy excitement. Only one case showed the symptoms of Lissauer's paralysis. Paresis developed in one case suffering from chronic delirium. The patellar reflexes were normal or increased in fifty-eight men, unequal in four cases, lessened in four cases, and lost in fourteen cases. In twenty-three women the patellar reflexes were normal or increased, unequal in three cases, diminished in three cases, and lost in eleven cases. Only in five of the men and two of the women the symptoms of tabes had long preceded the outbreak of the psychosis. Lumbar puncture was performed in fifty of the eighty men and in thirty of the thirty-nine women. In one man and two women there was no increase of the lymphocytes, but in all other cases a marked lymphocytosis was observed. In two of the negative cases the form of the psychosis corresponded to paresis, the third case seemed at the beginning somewhat doubtful. It was the case of an entirely mutacistic and extremely resistive women patient, whose patellar reflexes could not be elicited. It is possible, that the failure of the reflex may be explained by the strong opposition and resistiveness of the patient. The patient was repeatedly punctured with the same negative result. As the disease progressed however the diagnosis of paresis was confirmed, and a post mortem examination later on showed, upon microscopic examination, typical paretic degeneration. This case proves that in progressive paresis an increase of lymphocytes in the cerebral spinal fluid need not always be found, and that we go too far, when we seek to exclude general paresis on the ground of a negative result. The other two cases will only be determined after a histological examination of the brain. In spite of such exceptions lumbar puncture is certainly an important aid in the early differential diagnosis of progressive paresis.

Since frequently the patients were admitted to the clinic showing not very pronounced symptoms, or often with an alcoholic anamnesis, neuritic

symptoms associated with other alcoholic indications, it was necessary often to make a differential diagnosis between alcoholism or arterio-sclerosis. Lumbar puncture has given such a number of good results, which further clinical observation has shown to be correct.

6. ARTERIOSCLEROSIS OF THE BRAIN (ALZHEIMER).

In November and December, 1904, three men and four women were admitted, suffering from arteriosclerosis of the brain. In 1905 twenty-four men and twelve women were admitted in which arteriosclerosis of the brain was diagnosed. From the following table we may see the age of the thirty-six patients admitted in 1905:

Age on Admittance.	30-39.	40-49.	50-59.	60-69.	70-79.
Men	1	2	7	11	3
Women .....	.....	1	3	5	3

In 64% of the cases of the men alcoholic excess was the cause of the disease. Several of them were accustomed to drink immense quantities of beer (eight to twelve litres). In a large number of the men suffering from arteriosclerosis, the appearance of general vascular disease, (arterio-sclerosis of the brain), shewed only the termination of a chronic alcoholic life. With the women on the other hand no case of alcoholism has been established; we have however only a very scanty anamnesis about some of them. Lues is given as the cause in the case of four men and two women. The youngest man and the youngest woman amongst the patients were luetically infected. In three men a trauma was held responsible for the appearance of the disease. Since in two cases the patients had already passed the sixtieth year and one was also an old alcoholic, these two observations give no indication of any connection between trauma and arteriosclerosis. In the third case, (a man in his fifty-third year), it was a question of hard drinking. In regard to the history of the patients it is worthy of note, that in six of the thirty-six patients, one of the parents had died of apoplexy, in the case of another patient a brother had died of apoplexy, while in the case of two patients insanity was in the family. Two patients also had sons insane. If we attempt to group the manifold symptoms, which these patients present, we find an extraordinary multiplicity of clinical phenomena. Thus we come upon many kinds of conditions, which we find have never been described in a really exhaustive manner. We know very little of the attacks, which appear as a consequence of arteriosclerosis of the brain, that make it possible for us finally to obtain the correct diagnosis. Nowhere, however, is there a description of the psychotic phenomena, which often introduces the form of arteriosclerosis of the brain, seldom—however, remaining in the foreground for any length of time, but simply appearing episodically. They are on that account of particular clinical significance, as they may lead to wrong diagnosis, when the attacks do not show up distinctly. The cases of two men resembled the so called nervous form of arteriosclerosis: they complained of forgetfulness, vertigo, headache, tinnitus aurium, bodily weakness. They showed a severe general vascular disease, but did not exhibit the usual pronounced objective symptoms. In two men and one woman the disease showed itself in frequent attacks of an

epileptiform character, together with slight dementia without demonstrable cortical phenomena, and with considerable arterial sclerosis of the blood vessels. This form has been set down as arterio-sclerotic epilepsy. One woman had a haemorrhage into the capsule, and showed no psychical derangement after the subsidence of the acute symptoms. Two women patients had aphasia, although their intelligence was tolerably sound, (one mixed sensory motor, and one purely sub-cortical sensory aphasia). Seven men and three women showed the symptoms of post-apoplectic dementia, a condition of dementia, which usually develops after a severe apoplectic attack. Five men and three women form a group in whom, after frequent light attacks, cerebral softening, cortical phenomena, and a progressive dementia set in. The cases of three men and one woman resembled paresis in the slowly increasing dementia, and occasional light apoplectiform and epileptiform attacks. They are, however, distinguishable from it by the highly emotional weakness, the fatigue on slight exertion, striking retardation of thought, and the less universal dementia. These are the cases, which must be classed anatomically under the head of arteriosclerotic markatophy. Other cases are less well known. One case ran its course quite abruptly, beginning in a few days with the most marked excitement, anxious hallucinations and increasing mental confusion, which soon changed into a stuporous condition.

Another case began with anxious depression, suicidal attempts, and showed repeatedly conditions of delirious excitement. In four additional cases delirious episodes of this kind, of a longer or shorter duration, were observed; another time excitement of megalomaniacal delusions. In all these cases the general vascular calcification, apopleptiform seizures, cortical phenomena, and finally dementia proved the arterio sclerotic origin of the disease. Lumbar puncture was employed eight times for diagnostical purposes; in three cases the result was negative, but in two cases a slight increase of the lymphocytes was found, and in two additional cases a marked increase of lymphocytes. Of the four last cases three were undoubtedly syphilitic, and the fourth probably so. In giving an account of the histological investigations we will take up these cases again.

7. SENILE INSANITY (ALZHEIMER).

In the year 1904 four men and four women, and in the 1905 nineteen men and twenty-three women were admitted suffering from dementia senilis. The cases of one man and one woman were diagnosed as senile depression. These were patients with hypochondriacal delusions, self-accusation, anxious excitement, and impulse to suicide, in whom, however, a lesser degree of mental weakness was already evident. The case of a fifty-two year old woman was diagnosed as pre-senile psychosis. She exhibited along with the bodily signs of premature old age, individual illusions of sense, delusions of injury and influence, defective temporal orientation and a decided weakness of intellect. The cases of three men and one woman were diagnosed as senile insanity with delusions of persecution. Three men and three women were typical cases of presbyophrenia; the remaining twelve men and seventeen women showed the duller forms of senile dementia. Two men and four women were addicted to alcohol.

8. BRAIN LUES (ALZHEIMER).

In the year 1904 one woman, and in the year 1905 three men and three women were diagnosed as suffering from brain lues. In two cases nothing

definite could be learned of the period between the luetic infections and the first appearance of the cerebral symptoms of disease; in two cases it amounted to five years, in one case six years, and in the last case it was hereditary lues. These two cases exhibit a great variety in their clinical appearance, the woman eighteen years old was suffering from hereditary lues, was hydrocephalic, had a saddle nose and nodes of the tibiae, had developed slowly, always mentally defective, unable to learn much at school, a year ago her condition became worse; she became restless, irritable, talked much, ran away from the house, and complained a great deal of headache. There was an unusual amount of lymphocytes in the spinal fluid. She showed no trace of either a disturbance of speech or of the pupil reflex; the patellar reflexes were weak. There is, however, no sufficient ground for assuming infantile paralysis. An anatomic investigation would have to be held, before an explanation of the case could be given.

Two cases were diagnosed as vascular lues. One patient had had the first fit of apoplexy in his 36th year, the other in his 44th year. Owing to the repetition of attacks of this kind, a severe form of dementia developed. In this case there was also an exceedingly strong lymphocytosis of the cerebro-spinal fluid. We will give a report later of one of these cases.

The 5th case is even more obscure as regards its connection with any one of the known forms. Hemiplegia in connection with spasms on one side appeared repeatedly, and conditions of delirium with hallucinations, which lasted for long periods, and bore a resemblance to the delirium caused by drinking. They always improved under the influence of a specific treatment, just like the symptoms of transverse myelitis, still after each attack euphoric dementia became more pronounced. Possibly this was a case of meningomyelitis.

The last case is most in need of further explanation by other observations. It was that of a tramp, who had been frequently judicially punished. He had been undoubtedly syphilitically infected, had Argyll-Robertson pupils, paralysis of the facial nerve, defective patellar reflexes, and a very slight difficulty of speech. When admitted he was in a peculiar dreamy condition, given to muttering, and went through all sorts of absurd actions. After some days his mind became clearer, but remained for the last few years uncertain of his bearings, showed a distinct weakness of intellect and a peculiar euphoric humorous mood. His dementia bore no resemblance to paralysis. Shortly after his transfer to the district asylum for the insane he died quite suddenly from paralysis of the respiratory centres. The post-mortem examination furnished an entirely negative result. Unfortunately the examination of the brain was neglected.

IX. MANIACAL DEPRESSION (REHM).

The number of cases, which were diagnosed as maniacal depression in the years 1904-1905, amounted to 13 and 95 respectively. The 108 cases which are at our disposal will be regarded as a whole; where a separation into the different years is possible, the information has been added in brackets. The material embraces in the main all the forms, which Kraepelin in his manual regards as belonging to it.

With regard to the descent of the patients, 4 in 1904, and 56 in 1905, have their home, *i.e.*, were born, in one of the so-called "old Bavarian" districts, Upper Bavaria, Lower Bavaria, the Upper Palatinate (59%); 20 (1 in 1904, 19 in 1905) — 18% are of Swabian descent (Swabia and Wurtemberg). The remaining cases are distributed about equally in the Franconian

part of Bavaria, in the remaining part of Germany, and in the countries outside of Germany, more especially in Austria-Hungary. The high percentage of Swabians is striking, a fact which finds no explanation from the mixed population of Munich. It is well known that the Swabians are susceptible to "Melancholia." Among the cases treated in the clinic, however, a preponderance of depression in patients of Swabian extraction cannot be established; the same relation of depression to maniacal diseases is here represented as in other groups. Perhaps, however, the Swabians are particularly susceptible to maniacal depression in general: this could be established without more ado from the material in the Swabian Institutions. The Jewish element in our material is represented by 6% (1904, 6 and in 1905 7 cases); this number is small in relation to the well known disposition of the Jewish population to degenerative psychoses; perhaps the relatively small number is to be accounted for by the fact, that many of the Jewish patients belong to the well-to-do classes, and are therefore treated in private institutions. It is a striking fact, that at least 24% of the patients suffering from maniacal depression belong to the middle and wealthiest classes of the people. From this we would judge, that there is a certain inclination to maniacal depression amongst the higher classes, while alcoholism and epilepsy play an important part among the lower classes.

If we take into consideration the sex of our patients, we find 27 men (1904, 2 and 1905, 25), and 81 women, (1904, 11 and 1905, 70), among our material, *i.e.*, 25% of the cases were men, and 75% were women. This result is not in the least founded upon the numerical relation of the sexes in the neighbourhood of Munich, but can only be brought about by the fact that the female sex is particularly disposed to diseases of the type of maniacal depression.

For the further elucidation of this point let us arrange our cases under three general heads; we then obtain the numbers as seen in the following table:—

	Men.											Women.											Grand Total							
	1904.						1905.					Total.						1904.						1905.					Ttl.	
		%		%		%		%		%		%		%		%		%		%		%			%		%			
Maniacal	2	13	52	15	55	3	18	26	21	26	36	33.3																		
Depressive.....		8	32	8	30	7	47	67	54	67	62	57.4																		
Maniacal and depressive.....		4	16	4	15	1	5	7	6	7	10	9.3																		
	2	25		27		11	70		81		108																			

If we observe the purely manic and purely depressive cases, the 3rd group, owing to the small number of cases, does not give us anything to be relied upon. It strikes us, that the diseases of the depressive kind are by 24% greater than those of the manic kind. It is also to be noted, that in the case of the male sex there are 23% more maniacal and in that of the female sex 41% more depressive diseases. The relation in the case of the male sex between mania and depression is as 2 to 1, in that of the female sex as 1 to 25. This proves beyond a doubt an inclination of the female sex to depression in the manic depressive sense, a fact which is by no means new. The question is, however, not yet explained, if we admit that there is a

particular form of depression during the development of the spinal cord, which occurs mainly in women, (melancholia). Whether melancholia includes a number of our depressive cases, I shall discuss later; this will, however, by no means have a very great influence on the numbers; the fact remains, that there is a preponderance of depressions in the case of women. Where do these come from? I think that the explanation for this is to be found in the circumstance, that the female sex is more susceptible to impressions of an agreeable kind. We find an agreeable mode of reaction developed in the inclination to these reactions even in childhood, although external circumstances can scarcely exercise any influence, and also in later life the greater distinctness of agreeable oscillations comes out everywhere plainly enough in the female sex.

It is not surprising, that in the case of persons, having by descent a latent tendency to degeneracy, there is often a very peculiar sensitivity to agreeable impressions, and a strong inclination to participate in the extremes of affective life, without the difference of sex being thereby completely destroyed. I have examined a number of children, whose parents are under treatment in the clinic for manic depressive psychosis, and have found in a large number psychical signs of degeneracy, such as we see again and again in the previous history of our patients. In the anamnesis of 63 patients we find, basing our information on what their friends have told us, that the patient in his youth and more frequently later exhibited emotional disturbances. In the case of 45 patients no information could be obtained, either because nothing could be learned of their previous history, or because the patient exhibited earlier nothing unusual.

Some of the patients had come through typhus fever or meningitis in their youth. We must observe these data carefully, as a great number of the febrile diseases of children are designated in this way. Statements regarding wetting of the bed, which we often find in the previous history are more to be relied upon; wetting of the bed by children is not characteristic of a certain disease, or a particular kind of degeneration; we find it in children disposed to epilepsy, hysteria, and especially psychopathy. Headache is also very often observed. Two patients had had chorea in their childhood; in one patient, who was suffering from periodic depression, choreic movements (tics) appeared anew with every depression, and disappeared when cured. Moreover we often find statements, regarding "spasms of the heart," and hysterical attacks, the occurrence of these in manic-depressed patients reveals the degenerative tendency of these patients. In diseases in which the maniacal character of manic depression is prominent, it is often noted, that the patients were given to overrating themselves, were overhearing or petulant, especially often we find the patients set down as unstable, restless beings. In the case of patients, who are chiefly depressive, symptoms are very often observed, which presupposes a constitution of mind continually verging on depression. It is said of the patients, that they are dependant at all times, are always out of humor, timid and singularly dejected, of an earnest turn of mind, shy, easily frightened, always quiet, etc. As regards patients, who exhibit a recurrence of symptoms, we experienced, that they are always changeable in their moods and easily excited. Excitability is a symptom, which is very frequently met with in the previous history: the patients are described as irritable hot-tempered quarrelsome, violent, changeable and irascible; it is said of one patient, that he is even at his best "like the devil from hell." In the great majority of cases the intellectual ability is described

as quite good, a fact, which observation could confirm in the bad days of the patients. Only one female patient could be called mentally weak, she had a decidedly infantile appearance. In 11 patients the misuse of alcohol could be confirmed, the majority of these patients were of the male sex. In all these cases, however, dipsomania was confined to the times, when the patient was under maniacal excitement, no essential influence on the form of the psychosis could in any case be established, unless we are prepared to deny, that long continued alcoholism, particularly in the case of gin-drinkers, may conceal for a short time, maniacal depression by its specific alcoholic symptoms.

The majority of the male patients admitted were between 41 and 50 years of age, the female patients between 31 and 40 years of age, the age of the oldest female patient was 81 years. It is of great importance to ascertain the age of the patient on the first appearance of the disease; in 74% of the men patients and in 54% of the women patients the ages were equally distributed between 21 and 40 years. The earliest that the first symptoms of disease occurred was 7 years, and the latest 74 years. In 15% of the women patients the symptoms were first observed between the ages of 21 and 30 and from 41 to 50 years, the beginning of the psychosis therefore occurs about the same period of life in both sexes.

In 5.5% of the cases, bodily suffering is given as the cause of the disease, miscarriage, typhus fever, catarrh of the apices of the lungs, inflammation of the lungs, sudden fall, puerperium, extirpation uteri, stomach trouble, abscess of the tonsils, gonorrhoea. In some cases in the previous history, the death of a child is given as the cause, the death of a brother, religious excitement, and in one depressive woman patient the marriage of a daughter.

The time which elapsed from the alleged cause to the appearance of the psychosis varied from weeks to months. In 90% of the patients no definite cause was given. We may take for granted, that no real significance can be attached to the somatic and psychic influences given as a cause, since the number of the psychosis explained in this way is very trifling. Experience confirms, that the friends of the patients, and often the patients themselves, are inclined to explain the mental state by some accident or other, or to seek for the cause in a physical disease.

We meet the same phenomena also in other psychoses, *e.g.*, in dementia praecox and paresis.

I have already drawn attention to the degenerative impulses we find in our patients, even during the so called healthy periods; we find a further confirmation of degeneration, when we take note of the hereditary taint in the patients of our group; of course we must beware of laying too great stress on hereditary taint; it has been even pointed out, that healthy persons often exhibit scarcely less taint than the psychically unsound. In 58% of the cases we find distinct tendency to disease, according to the statements in the anamnesis in the parents, or brothers, or sisters of the patients; in 12% of the cases of the parents, or brothers, or sisters were set down as drinkers. Hereditary taint is of more importance as regards psychosis in the maniacal-depressive sense; such was found in 24% of the cases, and we only went back for our information as far as parents, brothers and sisters. This fact is of great importance; it is known that in individual cases the majority of the members of a family suffer from manic depressive psychosis. In such cases then we find in one family a shocking number of suicides and suicidal attempts. In glancing over our cases I find, that in 12%, (1 man and 12 women), marked attempts to commit suicide

had been made. In 2 cases suicide was successfully attempted some time after discharge from the clinic. That the women are responsible for the majority of suicides and attempts at suicide shows, that there is an intimate connection between this fact and the more frequent occurrence of depression among them.

The duration of the disease varies from some days and weeks up to 12 years. The majority of the cases were dismissed uncured, and went either to an institution, or back to their families. In judging whether a patient is recovered, great stress has been laid on the weight curve, which is indispensable as an extremely important objective standard. The further course of the disease could be brought under observation by the introduction of katamnesis.

I have sought to schematize the course of manic depression by a method of grouping, which seems to me very useful. It is an attempt, which makes no claim to having a definite form. In order, however, to be able to effect an entrance through the great confusion of cases, a scheme is necessary by which the grouping may be made. We wish particularly to emphasize, that in a great number of cases, the allotment to this or that group caused a great deal of difficulty; this was possible often only by an exact personal knowledge of the individual cases. Unfortunately we have not up to the present time been in a position to ascertain, whether judging by the symptoms of the individual disease, the further course of the illness was to be set down as periodic, circular, etc., but had to depend on probability; this is a proof, that we still lack an exact symptomatology of manic depressive psychosis, even if we have managed to obtain a distinct picture of the disease from the confusion of maniacal and depressive psychoses.

	1			2			3			4			Total.		
	Maniacal.			Depressive.			Circular.			Alternating.					
a) Chronic	3	3	%				11	10	%				14	13	%
b) Inclining to a chr. course (subchronic)				3	3	%	11	9	%				13	12	%
c) Periodic	6	6	%	14	13	%	20	18.5	%	7	6.5	%	47	44	%
d) First illness	5	4.5	%	19	17.5	%	10	9	%				34	31	%
	14	13.5	%	36	33.5	%	51	46.5	%	51	46.5	%	108	100	%

In explanation I must add that the cases set down in column 1, represent purely maniacal periods, which so far as can be learned, have never exhibited periods of a depressive nature; a number of mixed symptoms, with a preponderance of the maniacal kind occur in these cases. Something similar applies to column 2, the depressive cases. In column 3 we have put the cases, which exhibit mania and depression in one phase of the disease. Finally column 4 contains the cases, which present separate maniacal and separate depressive periods, which progress periodically, i.e., with a recurrence of healthy periods. A, B. and D. must of course be omitted in the alternating cases.

Under A. I have set down the cases, which took a chronic course in the sense, that no definite beginning could be found. All the patients of this column exhibited from youth symptoms of an affective kind, which could easily be reconciled with their later disease. It is probable that the

more or less severe psychosis is to be regarded as an exacerbation of an innate anomalous disposition. The transition to the so-called "psychopathic constitution" is in these cases gradual.

I have arranged the cases under B, which take a course (sub-chronic) inclining towards the chronic type. The essential difference between these, and the cases under A. is that the constitutional psychopathic anomalies of disposition are not prominent; the patients were perfectly healthy before the beginning of the manic depression. It is not impossible that these cases in the course of their illness have lucid intervals of short duration, which nevertheless have no connection with the continuous progress of the psychosis. These are exclusively cases, which take a longer course, (lasting for years), and which justify us in designating the prognosis as in the main unfavorable. It has been unfortunately up to the present impossible to say, whether a number of the cases under C. and D. may not also in their further course fall to this column. The cases under C. take their course periodically according to the known type. Under D. are found all the diseases occurring for the first time. It is probable that the further course of the disease will show, that the greatest number of these cases should be placed in column C., and a number also in column B. The largest number of cases belongs to the circular condition.

Column 3, and in that there is no contradiction to our statistics given at the beginning, that depressions were by far in the preponderance; the contrast of these two cases merely shows, that in the circular cases also depressions are prominent; 46.5% of all the cases exhibit maniacal and depressive periods in a phase of the disease in which the mixed conditions are not under consideration. The next largest group is that of the purely depressive cases, the number of which is represented by 33.5%. If we observe the grouping according to the form of process, we find 44% of the cases in the periodic groups (col. C.), further 31% in the diseases occurring for the first time (col. D.) While the chronic cases and those inclined to a chronic course (col. A. and B.) are represented by 13% and 12%, which taken together is little more than $\frac{1}{4}$ of the total number. As regards the prognosis, the periodic cases are relatively favorable; for the appearance of healthy periods is presupposed in the idea "periodic." Defective conditions do not occur in the cases of manic depressive psychoses, in contrast to those periodic psychoses, which end with a defect, as we see in the case of epilepsy and many cases of dementia praecox, which take their course at first periodically. A great number of periodic cases into which in the further course of the sickness, a part of those diseases occurring for the first time pass over, justifies us in attributing in general a relatively favorable prognosis to manic depressive diseases. We are not in a position to separate the cases with an unfavorable chronic course at the beginning of the sickness, or before the entrance of a period, which is free from sickness.

Let us turn now to the individual groups. The first (1 a), the so called chronic mania, is represented by 3 cases. A separation as regards constitutional excitement is not possible. We cannot go more minutely into the peculiarity of these, or the cases in the following groups owing to the limited space at our disposal.

In 3 a the chronic circular cases are found. We cannot be certain of the beginning of the disease, and the individual phases merge into one another, there being no distinct separation. The frequent occurrence of mixed conditions of all kinds is particularly striking in this form.

The group 2 b is distinguished by the long duration of the psychosis, which is in distinct contrast to the previous healthy period. The course

of the depression shows a number of exacerbations. Mixed conditions in the sense of depression with psychomotoric excitement occur frequently.

In group 3 *b* is found the same general character as above in 3 *a*; the continual oscillations, which occur during the whole psychosis, when the various periods of time are considered, may be compared with the swinging to and fro of the pendulum of a clock.

In group 1 *c*, I have placed those suffering from periodic mania. It is supposed, that there are intervals, when the patient is in good health. One case is distinguished by maniacal periods of short duration, for the most part of only 8 days.

The same form of depression is exhibited in the cases in 2 *c*, and among those are also 2 cases with quite short depressive periods.

In group 3 *c*, we find, as we have already mentioned, the most numerous cases. These are psychoses having the sick periods quite distinct from the healthy periods, and which are repeated periodically for the most part in the same manner. The type, which is most of all represented, is that, which after a short maniacal or hypomaniacal period, there follows a depression, which lasts for a longer time; the opposite type occurs also very frequently, longer depression then a maniacal period of short duration.

In group 4 *c* are found the alternating cases; 3 of these cases conceal in individual periodic attacks, short depressive intervals. The type of the alternating periodic disease is a perfect one in all these cases. Generally speaking depressions are in the majority; that is a phenomenon, which we have frequently met as a preponderance of the depressive aspect in manic depression.

The last groups are 1 *d*, 2 *d* and 3 *d*, which explain themselves from their position in the scheme itself. They are diseases occurring for the first time, and which have been cured for the most part, during the composition of this work. As we have already mentioned, the cases in *d* could be put for the most part in other groups.

It is further to be noticed, that the cases occurring for the first time were for the most part between 25 and 40 years of age.

As an exception to this rule we find a number of cases in group 3 *d*., which are diseases (of the depressive kind), occurring for the first time in the sense of manic depression. These 6 cases were at the beginning of the psychosis, between 41 and 65 years of age, not one of these cases has recovered up to the time of the conclusion of this work, (August, 1906); only in one case was there an improvement with a continuation of the depression. The beginning of the disease was in the cases in question slow and gradual. Hereditary taint seems to play but a trifling part, as is the case generally speaking in the other manic depressive patients. In almost all these cases the disease is connected with a cause, which tends to relieve the depressive affection. In none of the cases has a maniacal, or a mood bordering on the maniacal been perceived in the previous course of the disease. Before the contracting of the disease the patients were thought to be in perfect health; they exhibited no pathological qualities of character. All the cases showed, during the longest periods in the course of the psychosis, the form of a mixed state, which consisted in depression with strong psychomotoric excitement. Conditions of anxiety with preponderant hypochondriac delusions were in the foreground. I think it probable, that these cases represent a particular type of disease, which is closely connected with melancholia, and which involves generally speaking an unfavorable prognosis. Symptoms of senile decay were not observed in cases of this kind. A decisive judgment in the case of depres-

sions of this kind can only be given, when the institutions, in which such cases occur in comparatively large numbers, turn their attention carefully to this group.

10. EPILEPSY (WEILER).

In the year 1905 171 persons were admitted to the clinic whose cases were diagnosed as epilepsy: of these, 128 were men and 43 women. Many of them were brought to the institution several times in the course of the year, so that 245 was the number set down for epilepsy; the men applied to the clinic 219 times for attendance, the women 50 times.

From the 8th of November to the 31st of December, 1904, 19 men and 3 women were admitted, who were suffering from this disease, 10 of whom were again cared for in the year 1905.

The great majority of the patients were after a short time again dismissed from the institution, many remaining with us only one or two days. In 1905, 24 men and 9 women, and in 1904, 6 men and 1 woman, were transferred to asylums for the insane, of whom 27 men and 4 women were sent to the district asylum for the insane in Munich.

Of those admitted in the year 1905, 4 persons died, while in the year 1904, there were no fatalities.

From November 7th, 1904, to December 31st, 1905, 183 cases were treated, of whom 137 were men and 46 women.

We may see from the following table what gave rise to the bringing of the patients to the institution:—

Reason for admittance.	Men.	Women.	Total.
Attacks.....	70	35	105
Condition of excitement.....	18	2	20
Suicidal attempts.....	8	4	12
State of intoxication.....	27	2	29
Transference from the hospital.....	8	2	10
Transference from prison.....	1	.....	1
Introduction for the purpose of consulting the committee....	1	.....	1
Voluntary entrance.....	4	1	5
	137	46	183

Twelve men were brought in by the police, 5 of whom were considered dangerous to society.

As we can see from the preceding table, a large number of persons, (16% of the total number of patients), was brought to the clinic on account of intoxication. After a more careful examination, however, they proved to be epileptics as well. From this it is clearly seen what a great influence the easy access to the clinic has upon the above group of diseases. It would not do at all to draw extensive conclusions from the fact, that there is a great difference in the number of admissions for both sexes, as to the frequency of the disease in men and women. At any rate in such a count we would have to leave out of consideration those, who were admitted on account of intoxication, as well as a large fraction suffering from conditions of excitement, since with these very often it was only the previous addiction to alcohol, which brought them under medical care.

Besides the patients, who were brought to us in an intoxicated condition, 20 men and 1 woman had evidently drunk more than usual before their admission to the clinic.

The transference from the hospital was resorted to principally because the physician in attendance found psychical abnormalities in the patient, and wished to form a more exact judgment of the case: only one case was transferred, because he had several attacks in the hospital, and became too noisy for the environment. One accident case was installed to obtain the opinion of an expert.

If we group the patients according to the age in which the first signs of disease were observed, we obtain the following table:—

Age	Men.	Women.	Total.	Age.	Men.	Women.	Total.
0-5	4	1	5	41-45	2	1	3
6-10	12	5	17	46-50	1	.....	1
11-15	21	11	32	51-55	3	.....	3
16-20	39	7	46	56-60	1	.....	1
21-25	16	5	21	Unknown	4	5	9
26-30	19	4	23				
31-35	11	1	12				
36-40	4	6	10				
					137	46	183

The time between the 15th and 20th year yields the largest number of cases in the men, while in the women the first signs of disease occurred between the 10th and 15th year.

In 78.7% of the cases the disease began before the 30th year, beyond this age the cases occurred much more seldom. Perhaps at least a part of the latter had an entirely different cause of origin than the rest.

It is known that hereditary taint plays an important part in the origin of epilepsy: in the group of 85 persons, (62 men and 23 women), there existed severe nervous and mental derangements or alcoholism. In the case of the men 34 times the father or the mother had been addicted to drink, and in that of the women, 11 times. If we express these numbers in percentage in relation to the total number admitted, we obtain the result that 45.2% of the men, and 50% of the women, or in total 46.4% had hereditary taint. In the case of 24.8% of the men, 23.9% of the women, and 24.5% of the total number of patients, either the father or the mother was suffering from alcoholism. Many of the patients were afflicted on the one side by a nervous or mental disease and on the other side by dipsomania.

As regards the alcoholic tendencies of the patients themselves; of the men 98 or 71.6%, and 12 or 25.8% of the women were in the habit of drinking over two litres of beer or gin a day. We may then set down 60% of the total number as alcohol drinkers.

On a more careful examination two things are striking. On the one hand the epileptics have a great inclination to drink. Of 76 of the male patients, who contracted the disease before the 20th year, 47 were drinkers; of 24 of the female patients, who became ill before the 20th year, 4 were drinkers. Many of them had been poisoned by alcohol, when they were only small children, so that in their case perhaps the early use of alcohol contributed to the origin of the disease; for the most part the epileptics did not take to drink, until signs of the disease were already apparent. On the other hand we found, that of 22 men, who developed the disease after the

30th year, 21 had previously been drinkers; of 8 women who contracted the disease at the same age, 6 had previously been addicted to drink, (more-over 1 of the remaining 2 had not been questioned with regard to alcohol misuse). We see, therefore, that in the case of epileptic attacks, which do not occur until after the 30th year, in almost 100% the misuse of alcohol has preceded, so that we cannot shut our eyes to the fact, that it plays an essential part in bringing on the disease.

Besides the causes mentioned above for the origin of epilepsy, the disease might in some cases be encouraged or removed by a trauma; 16 men apparently developed the disease for the first time, shortly after severe accidents, but there were only three of them, who had not hereditary taint, and only 1, who had neither hereditary taint nor was given to drink. We may mention further, that in 11 women the attacks occurred for the most part, or only at the time of menstruation; of course we could not be perfectly sure that attacks did not occur unnoticed at other times, perhaps at night. Other, perhaps, important causes for the origin of the disease cannot be gathered from the history of the disease in the material at our disposal.

We have been able to obtain the following data from the statements advanced, either by the patients themselves, or their relatives, or friends.

Quite a considerable number were abnormal as children; 27 had convulsions, 21 were weakly, 23 wet the bed at an advanced age, 8 were somnambulists. We can see the progress made by them in school from the following table.

—	Good.	Fair.	Bad.	No information.
Men	59	42	17	19
Women	21	13	6	6
	80	55	23	25

The following table shows what employment the patients followed on leaving school:—

—	Men.	Women.
Artisans or tradesmen	52	
Day labourers	25	
Brewers and Coopers	10	
Messengers	9	
Painters and Sculptors	7	
Servants	6	
Skilled workmen	6	
Clerks	4	
Other employments	14	
Without employment	4	24
Servants		7
House-keepers		5
Char-women		4
Waitresses		2
Manufactory employees		2
Shop girls		2
	137	46

Of those admitted to the clinic 97 of the men were over 25 years of age, and 40 had not yet reached their 45th year. Of these, 101 were unmarried, 31 married, 3 were widowers, and 2 divorced; 35 of the women were over 20 years of age, 9 younger; 30 of these patients were unmarried, 10 married, 5 widows, and one separated from her husband.

From the preceding table we see, that a large portion of the male epileptics were only day-laborers, or had employment of a lower kind. In the others the number of cases is too small to permit of our drawing conclusions as to the distribution of the individual classes of vocation in the case of epilepsy. It is a striking fact, however, that relatively few of the patients were married. Of 97 men who were over 25 years of age, *i.e.*, had reached an age, when people of a like position are accustomed to marry, only 36 (about 37%) were married or had been married.

An insuperable wandering impulse kept many of them from settling down; 26 men and 7 women were conscious that something abnormal in them often drove them from place to place, and caused them to give up good positions for no reason at all, or to leave house and home. The desire to travel to foreign lands drove 3 to foreign countries and forced other 3 to become deserters.

A great number of the patients had been judicially punished, many of them 20 to 30 times and oftener. We learned from the public records, that 65 of those admitted to the clinic had been previously sentenced, (63 men and 2 women). Of these 63 (61 men and 2 women) were alcohol drinkers. The offences for which these persons were punished may be seen from the following table:—

Offence.	Men.	Women.
Assault.....	46	.....
Misdemeanors.....	21	.....
Civil injury.....	14	1
Burglary.....	4	.....
Robbery.....	1	.....
Murder.....	1	.....
Carrying of knife.....	4	.....
Theft.....	21	2
Fraud.....	18	2
Begging.....	24	2
Vagrancy.....	7	.....
Prostitution.....	.....	1

Apparently then assault, misdemeanors, civil injury and burglary are the main offences committed. Alcohol and the irritability of the epileptic work together to bring about the same result.

We may mention here still one more thing in regard to the peculiarities in character of the epileptics; 75 men and 24 women stated, that they had been as far back as they could remember easily excited and often irascible; 39 men and 10 women had had at times conditions of excitement with disturbance of consciousness, in part also with illusions of sight and hearing; 94 persons (77 men and 17 women), *i.e.*, 55% of the patients were suffering from periodic ill-humour, which lasted for some hours only, or at the most, for a day. The fact on the one hand that not unfrequently ill-humour of this kind is observed in hard drinkers, and the strong tendency of epileptics to alcoholism on the other hand leads up to the ques-

tion, how many of the epileptics, who were frequently illhumored, were alcohol drinkers? It seems that of the 77 men, 60 were hard drinkers, and of the 17 women, 4, so that we may well have our doubts, whether the ill-humor is to be regarded as purely epileptic, or is rather occasioned by the misuse of alcohol.

The peculiarities of the epileptic, irritability and the impulse to travel, as well as the occurrence of attacks hinder him very much from remaining in a position for any length of time, and reduce him to vagrancy and beggary. Punishments of this kind therefore occur quite often. The frequent violation of the right of property is explained by the low hereditary inclination of the epileptic, to which must be added his reluctance to continue in any fixed occupation, so that he often suffers from want.

The two women, who were sentenced were vagrants, who having no family ties had degenerated, maintaining themselves partly by beggary and partly by prostitution.

It is, however, not only to the property and life of strangers, that the epileptics are becoming dangerous, but very often to themselves. A great number of our patients often wanted to commit suicide. We learned that 60 persons (45 men and 15 women) had often thought of putting an end to their miserable existence at times, when they were discouraged and disgusted with everything; 30 men and 9 women made one or more attempt to kill themselves. Twelve persons were brought to the clinic directly after having made such attempts. The different ways in which suicide was attempted are as follows:—

Suicidal attempts by	In general.			Epileptics who were drinkers.		
	Men.	Women.	Total.	Men.	Women.	Total.
Hanging.....	15	.....	15	13	.....	13
Drowning.....	13	3	16	11	2	13
Poisoning.....	5	1	6	2	.....	2
Shooting.....	5	.....	5	1	.....	1
Throwing oneself from a height.....	4	4	8	4	2	6
Cutting the throat.....	4	.....	4	4	.....	4
Getting run over.....	2	1	3	2	.....	2
Stabbing.....	2	.....	2	2	.....	2
	50	9	59	39	4	43

We find then in 50 men 50 attempts at self-destruction, in 9 women, 9 attempts. Among the 59 persons, 26 were alcohol drinkers, and these were responsible for 43 out of the 59 attempts. The remaining 13 epileptics, who were not hard drinkers, made only 16 attempts. Although these numbers are not large, still it seems probable, that the epileptics given to drink are more inclined to self-destruction than the others. In the case of the men, hanging seems to be the favorite means of committing suicide; then come drowning, poisoning, etc., and but seldom getting run over and stabbing. Comparatively few attempts by shooting are indulged in. The women sought to put an end to their existence for the most part by throwing themselves from the window, or by springing into the water. If we compare the cases in their relation to alcoholism, we find that the alcohol drinkers have almost without exception made use of means, which

were easy to put into execution, while the others chose means calling for more forethought, such as poisoning and shooting. The extremely crude methods, such as stabbing and cutting of the throat we find also resorted to, and indeed exclusively by those who were hard drinkers.

The statements which we find over and over again in the previous history of such patients are characteristic of the whole class. "He came out of the inn and sprang at once into the Isar," or "He came home intoxicated, went into his room and hanged himself." Very often suicidal attempts were occasioned by a domestic quarrel; or again because the husband came home intoxicated, and the wife showed him his hungry children; he then became despondent and hanged himself. If we are to accept as conclusive, that the epileptic is a danger to himself, particularly at a time of deep depression or irritability, we must nevertheless ascribe in a great measure to alcoholism the large percentage of suicidal attempts among these patients, in that it aggravates the disease particularly in the case of excited conditions; on the other hand, however, not seldom the hard life of the epileptic is increased by the enormous expense for medicine, which eventually causes him to lose all hope.

It was established partly from the previous history, and partly from observation in the clinic, that 119 men and 42 women were subject to epileptic convulsions. It was asserted that 154 persons had attacks during the day, 95 at night and 39 both day and night. A small number (7) had convulsions only at night, and 65 had professedly no convulsions during the night; 68 patients stated that they bit their tongues during the attacks, or had afterwards bleeding, lacerated lips; 22 persons had epilepsy without convulsions; 75 persons exhibited lighter epileptic symptoms, attacks of dizziness of short duration, 64 typical loss of consciousness.

Let us now turn to the observation of the patients in the clinic itself: There were only a few, who were deficient in bodily structure and strength; on the contrary many were unusually strong; 68 persons (51 men and 15 women) might be designated as robust people; 50 (42 men and 8 women) were average normal persons; 51 (33 men and 18 women) were deficient in bodily structure. We have nothing worth relating of 11 men and 3 women. In almost all of these cases designated as weak, with a very few exceptions, epilepsy had set in in early youth. A further examination showed that 34 persons (30 men and 4 women) had signs of degeneracy, more particularly in the case of 14 men and 1 woman. The following were the forms of degeneration:—

Outstanding ears	15 times.
High and prominent gums	7 "
Unequal sides of the face	7 "
Darwinian head (pointed)	5 "
Attached ear lobes	4 "
Retreating forehead	3 "
Wolf's jaws	2 "
Eccentric pupils	2 "

The neurological investigation proved, that a large number of the patients had pupils dilated above the average; here and there it was noticed, that the pupils had been very much dilated shortly before or during a state of excitement. Often a very prompt light reaction was observed; nevertheless it does not seem to be of importance to group these circumstances according to number, since here the subjective measurement plays too large a part. This applies also, although not to such a

great extent to the observations on the patellar reflexes. In 120 persons we found, that the reflexes were increased, in 51 nothing of importance was noticed, and in 4 they seemed lessened, while in 12 there was nothing unusual; 57 men and 5 women had a violent tremor of the hands, and 34 men and 3 women exhibited Romberg symptoms: in 29 men and 2 women the large nerve roots were extremely painful if pressed upon. These latter derangements are probably due to alcoholism, which was at the same time present: they did not occur in the non-drinking epileptics; 5 persons had organic disease of the heart, 3 were suffering from phthisis, and 3 had arteriosclerosis.

The information which we obtain from the history of the disease with regard to the psychical peculiarities of this group of diseases not being of equal value, do not admit of precise numerical statement.

This is accounted for by the fact, that by far the majority of the patients are dismissed after a very short time, sometimes even after a few hours. Owing to the large number of patients admitted to the institution, we have to very often content ourselves with noting down only so much about the patient as seems necessary for the establishment of a correct diagnosis.

Generally speaking the patients represented a group of very irritable people, who were especially dangerous when intoxicated. Many of them, after they had slept off their debauch exhibited no peculiarities typical of their disease, they were good humored and answered willingly all the questions put to them. Others on the contrary were on the following day grumpy, quarrelsome and unobliging. With some this irritability lasted for some days. Almost all of them, with only a few exceptions, were quite certain, that alcohol aggravated their disease very much. Many of them said, "as soon as I drink I get an attack," others, "When I do not drink the attacks remain away." In the case of 2 persons who were brought to the clinic after their very first attack, it turned out that they had been boozing, one of them confessed, that he had never drank so much in his life before.

Among the patients there was also a rather small number, who were friendly, obliging, very courteous, and especially confidential. These were all patients, who had not been addicted to drink, and most of them already showed signs of psychical weakness and defective intelligence.

With the exception of the cases which were brought into the clinic during an attack, epileptic attacks occurred only now and again. In some patients a status epilepticus developed in the course of their residence in the clinic, and 3 of them died in this state.

In 22 patients (19 men and 3 women) typical epileptic states of bewilderment were observed with disturbances of consciousness, delusions, and illusions.

Three cases of genuine dipsomania were diagnosed, 2 of whom had often previously been brought to the psychiatric division of the hospital. The attacks were always of the same nature. A sudden despondency drove them to the saloon, where they avoided all society and drank continuously without becoming intoxicated, *i.e.*, without the disturbing effects of the alcohol becoming apparent. Sometimes the whole episode passed without attracting attention, and the patient escaped being put under the care of a physician: sometimes excitement was the reason of their being brought to the clinic. They often came also of their own accord, as they understood

their own condition, and were afraid of getting into trouble. According to their own statement, and that of their relatives they were in the intervals entirely sober, and for the most part took no alcohol at all.

There is one case which is perhaps particularly worthy of mention. The patient 22 years of age was a student of veterinary surgery. The mother was nervous, but otherwise there was no hereditary taint. Three brothers and sisters were healthy, and he developed in a normal manner and learned well at school. As a boy he talked occasionally in his sleep, but apart from this there was nothing unusual about him. For the last two or three years he became subject to fits of ill-humor, which came on without any apparent cause; he then shut himself up alone, did not wish to be spoken to by any person, and spoke little himself. These states of ill-humour occurred in the morning, and lasted sometimes for a whole day, but for the most part disappeared after some hours. They came on at regular intervals, sometimes a few times in a week. The patient exhibited an irritable temperament, and "could not appreciate a joke." Epileptic attacks were never observed. For the last four years at least the patient seemed to be in need of an extraordinary amount of sleep. He could no longer follow the lectures properly, as sleep overcame him in spite of the fact that he tried very hard to keep awake. This state of sleep often came to an end by a momentary twitching of the body. These attacks kept becoming worse and occurred more frequently. Finally the patient would fall asleep in the middle of a conversation, or even while standing or walking, so that he sometimes lost his hat and cane while out for a walk. Active bodily exercise at times kept the attacks away, but very often it was unsuccessful. He himself said that his sleep was often broken by lucid intervals in which he became aware of his condition, and that at night he had often a feeling of anxiety. There were no hysterical symptoms to be found in his case. The patient did not care to speak of his condition, and was in the main rather reserved and uncommunicative.

The patient often got such attacks of sleep in the clinic. At such times he resembled a person in a natural sleep, held occasionally a book in his hand, which he had been reading shortly before, and marked the place with his finger. Very often his face would suddenly become pale. We concluded that these attacks of sleep, which are similar to loss of consciousness are to be regarded as signs of epilepsy. It also was noticed that these attacks could not be brought about by simple verbal suggestions.

We have very little to add as regards the treatment of epilepsy in the clinical sense, as we have already repeatedly remarked, the most of the patients were very soon dismissed. On the admittance of the excited patients it was sometimes found necessary to make use of narcotics; in these cases injections of hyoscin were exclusively employed. Many of them quieted down in the warm bath. In cases of bewilderment it was sufficient to put the patients into the continuous bath, and it was then not necessary to use narcotics. The rectum was thoroughly emptied in every case. In the case of those who remained longer, a bromide treatment was employed, and they were given as little meat as possible.

Attacks occurred, as we have already mentioned above, but seldom in the institution. In many patients the cutting off of the supply of alcohol was sufficient to stop the convulsions. Of course on dismissal it was strictly enjoined upon the patient to avoid the use of alcohol. Many still

remained under poly-clinic treatment. In the case of patients in a status epilepticus, a hydrate of starch (amylenhydrat) was employed as an enema in doses up to 5 grains, which were repeated when required, after the rectum had been thoroughly cleansed, and at the same time they were made to inhale oxygen. In spite of these measures, however, three of the patients died. The post mortem examination showed marked cerebral changes. A fourth patient succumbed to the injuries, which he had received in the attempt to hang himself.

Let us run over again shortly the results obtained from these statistics: A large portion of the total admissions to the clinic were epileptics, the number of these persons was increased considerably by the fact that many, who were brought in on account of intoxication, turned out to be epileptics. This of course increased mainly the number of male patients, so that it was not possible according to the material in the clinic to draw a proper comparison of the frequency of epilepsy in men and women. The relation is as follows: 74.3% of the admissions were men, 25.7% were women. If we subtract the cases, which are in this group only by chance, either because they were admitted on account of intoxication, or owing to a condition of excitement brought on by the use of alcohol, the relation of the two groups will be essentially different; we find then 67.6% male patients and 32.3% female patients.

Some statistics from other authors may serve as a comparison. According to Binswanger out of 100 patients, 61.8% were men and 38.2% women. Lange gives us the numbers of 55.8% for men and 44.2% for women. Seibold has recently informed us that in the case of 913 epileptics, 59.2% were of the male sex, while 40.8% were of the female sex; 82.7% of those admitted contracted the disease before the 30th year, and 17.3% later. The first signs of the disease were observed in 29.4% of all the male patients between the 15th and 21st year, while in 26.8% of the female patients, it occurred between the 10th and the 15th year.

Some 46.4% of the patients had severe hereditary taint; 24.5% were injured by the alcoholism of the parents; 60% of the patients themselves were drinkers. Of those who shewed no signs of disease until after the 30th year, 90% had previously been alcohol drinkers, so that we have grounds for believing, that the previous misuse of alcohol plays an important part in the origin of epilepsy, which develops later in life. On the other hand it seems also that epileptics as such are very much given to dipsomania, since of those who contracted the disease earlier, at least 50% became drinkers after they had already become epileptics, a fact which can perhaps throw a little light on the cause of alcoholism in general.

Severe accidents had perhaps in approximately 9% of the cases either aggravated or lessened the disease; there was no case of which we could say with certainty that a trauma had been the only cause of the origin of epilepsy.

In the case of 25% of the epileptic women, the attacks were affected by menstruation, in that they either appeared only at this time or became worse.

Many of the patients had been abnormal as children. Percentage figures in regard to this, however, are not to be found, as the previous history in this respect could not always be complete. Many were backward at school, and their disease prevented a large portion from learning a handicraft or trade; they were content to earn their bread as day laborers

or something of the kind. It is striking that a very large number of the men remained unmarried; 63% were unmarried, although they had already passed the age when people of their standing are accustomed to marry.

Of those admitted, 35.5% had already been at variance with the law. On looking through the criminal list of the individual patients we would conclude, that alcoholism along with epileptic degeneracy plays an important part in the perpetration of crimes.

Some 21.4% of the patients attempted self-destruction, (one died in the clinic, as a result), while 30% often thought of putting an end to their existence. Here again we find the most of the attempts were induced by alcoholism. We may here also mention, that these extremely violent and dangerous patients may be controlled without seclusion, and sometimes, although seldom, by the employment of hyoscin.

Hysteria—(Nitsche).

In the year 1905, one hundred and four hysterical patients, (forty men and sixty-four women), were admitted to the clinic. Four of the male and eight of the female patients came to the clinic twice, one three times and three four times. The total number of admissions then in the course of the year 1905, amounted to one hundred and twenty-seven, of whom forty-four were men and eighty-three women.

When we examine the age of these patients we see, as is to be expected, that there is an extraordinary preponderance of the youthful among them, more especially in the case of the women. Few, (nine out of sixty-four), had passed the 30th year, while in the case of the men, twelve out of forty had crossed this boundary. The following table gives an idea of the age of our hysterical patients on admission:—

Age on Admittance	Men	Women
Less than 10 years.....	0	1
11 to 15 years.....	8	6
16 " 20 ".....	11	15
21 " 25 ".....	5	18
26 " 30 ".....	4	16
31 " 35 ".....	3	3
36 " 40 ".....	4	0
41 " 45 ".....	3	2
46 " 50 ".....	1	2
51 " 55 ".....	0	0
56 " 60 ".....	1	1

The most frequent cause of admittance to the clinic, particularly in the case of women, is hysterical convulsions. Young girls, who had an attack after a scene with their lovers; men who were seized with an attack during a row, and at times under the influence of alcohol, were brought to the clinic. Next to these attacks, states of bewilderment, and in the case of the women also excessive outbreaks of emotion, with violent excitement, are responsible for the bringing of patients to the clinic. In a series of cases there was no evidence of any special event, which demanded rapid treatment in the hospital. It was the severity of the whole character of the disease, which induced the relations of the patient to seek treatment in the clinic. In this way fourteen of the men and eighteen

of the women came to us. The following table will give information with regard to the reason for introducing the patients to the clinic:—

Reason for Admittance	Men	Women
Attacks.....	18	40
Condition of Bewilderment.....	8	10
Affective Excitement.....	2	10
Suicidal Attempts.....	1	4
Intoxication.....	1	0
Whole character of disease.....	14	19

As regards the clinical peculiarity of the patients, the forms in which convulsions prevail are the most numerous in the case of both sexes, (seventeen men and thirty-six women). Next to these come the cases in which the inclination to states of bewilderment give the impress of the disease; to this six men and ten women belonged. The form of hysterical bewilderment described by Ganser occurred three times in men under observation. A further group is formed by the women patients in whose case an affective excitability with changeability of mood was prominent, and which made their existence in society for a shorter or longer time impossible, (nine cases); moreover there existed permanently or temporarily other symptoms of hysterical attacks, and stigmata of the most varied character. Here it was a question of young girls from 16 to 20 years of age, in whom the condition of extreme irritability already described had existed for some time, and which led in some cases to repeated admissions to the clinic, and finally to the asylum for the insane. Marked disturbances of consciousness were repeatedly observed in those patients at the height of their angry outbreak.

Four cases of protracted hysterical psychosis in women are worthy of note, from the point of view of differential diagnosis, among whom along with the contemporaneous existence of specific delusions of persecution and illusions of hearing, the dullness was for the most part not at all marked. The patients appeared to be apathetic, lacking in energy and usefulness. Sudden impulsive excitement arose sometimes, along with aimless movements, and an inclination to destroy. This was often accounted for by a visit from the physician, or an examination; at such moments this disturbance of consciousness was more marked, and occasional examinations would lead us to believe, that the patients were in a dreamy condition.

It was a question in these cases of differential diagnosis from dementia praecox. None of the patients had yet reached the 30th year. Among the male patients there were five cases of extreme psychopathic degeneration. A decided inclination to swindle, which many times had also led to criminal offences, was united to great changeability of mood, instability, unsteadiness, and twice to alcoholic intolerance. At the same time the patients had often exhibited extreme hysterical symptoms, loss of consciousness and states of bewilderment. Among the women also there were four, who showed distinct ethical defects, along with signs of hysteria.

Eight patients, (two men and six women), showed an inclination to self-destruction. In thirteen cases there existed, along with hysteria, distinct weakness of mind. Potus occurred in seven men and two women. Ten of the male patients were suffering from decided alcoholic intolerance. We learned that three patients only got these attacks after indulging in alcoholic drinks, and in four cases a state of bewilderment had set in

immediately after alcohol had been indulged in freely; yet we also found in these cases, along with the operation of the poison, there could be shown a psychical reason for the origin of the disturbance. The following numbers give information with regard to the hereditary relations of our hysterical patients:—

Dipsomania of the parents was proved in fifteen. Nervous and mental derangement in forty-seven. Birth out of wedlock in two out of one hundred and four cases.

Seven men and five women had been punished by the law. The offences were theft, fraud, bodily injury, disturbance of the peace, misdemeanors and prostitution.

By far the majority of the patients could be dismissed after a short residence in the clinic. Only fourteen patients (ten women and four men), had to be transferred to the asylum for the insane, owing to the severity and obstinacy of the symptoms of the disease. The reasons for admission to the Institution were, severe ethical defect and criminal inclinations (two). A decided inclination to states of bewilderment (six). Unsteadiness and incapability of sticking to employment (one). Great emotional excitability (five).

1904.

In the time from the 8th of November to the 31st of December, 1904, we admitted 18 hysterical patients (10 men and 8 women). Two of the former came twice, so that the number of admissions then for hysterical diseases amounted in this time to 20.

Age	Men	Women
11-15.....	2	0
16-20.....	4	2
21-25.....	1	2
26-30.....	1	2
31-35.....	1	2
36-40.....	1	0

Twelve times an attack was the reason for admittance, once severe mental excitement; in 7 cases the totality of the symptoms led to the bringing of the patient to the clinic.

In 11 patients (7 men and 4 women), attacks were the main feature of the disease; in 5 (3 men and 2 women), the so-called hysterical character was particularly emphasized.

One male patient was subject to somnambulism; another female patient came through a state of bewilderment.

Two men displayed dipsomania and one alcohol intolerance; 6 patients had hereditary taint, and one female patient was born out of wedlock.

One man had been at variance with the law, (theft by fraud).

Of the 18 patients, 16 were allowed to go home. One female patient had to be conveyed to an asylum for the insane, on account of severe hypochondriac symptoms, and one man owing to extreme instability and criminal inclinations.

12. ACCIDENT CASES. (PLAUT.)

In the year 1905, 26 male accident cases and 3 female accident cases were admitted. Two men and 1 woman did not claim damages; the rest were referred to the committee on accidents and damages.

Of the men 21 were married and 5 unmarried. The age of the male patients may be seen from the following:

20-29 years of age	6 patients.
30-39 " "	10 "
40-49 " "	7 "
50-59 " "	1 "
60-69 " "	2 "

The interval in time between the accident, and the introduction to the clinic was 0—2 years in the case of 16 patients, 2—7 years in that of 7 patients, and in that of 1 patient, 9, 13, and 19 years.

Vocations.—19 were day laborers; 12 artisans; 1 policeman; 1 railway porter, and 1 farmer.

Nature of the trauma.—Fracture of the skull, 3. Concussion of the brain 12; followed by loss of consciousness in 9.

Crushing of the body and of the extremities, 5. Effect of terror, 5.

Hereditary psychical taint was found only in one case. Three patients had to be designated as imbecile, and one as degenerate from birth.

In 10 cases there was a combination with alcoholism; 6 showed arterio-sclerotic changes; of these, 1 was in his 29th year, 1 in his 39th year, 3 in the beginning, or the middle of the 40th year, 2 in the first half of the 60th year.

Vasomotor disturbance occurred in 6 cases, tremor in 7, general increase of the tendon reflexes in 5 cases. Transient injury of the sensibility was frequent. Constant disturbance of the sensibility took place in only 2 cases. Two patients were suffering from hysterical attacks, and two from states of bewilderment. Concentric restriction of the field of vision was established in only 2 cases. (In a number of cases there was no examination made.)

The 3 women were 23, 29, 40 years of age, and 2 of them were married. The interval in time between the accident and the admission to the clinic amounted to 1, 1½, and 10 years. All the cases were suffering from decided traumatic hysteria.

One case was that of a 23 year old country girl, who had been previously apparently quite healthy, with no hereditary taint in her case. A year before her admittance to the clinic, she had been thrown to the ground by a cow without, however, suffering any visible harm. Some days later an hysterical state of bewilderment developed, which lasted continuously for several months. Later the patient was quite normal, attended to her work regularly, but was however more easily tired than previously, and suffered occasionally from hysterical attacks.

In November and December of the year 1904, four men were admitted to obtain the opinion of the committee on their case, (results of an accident), one of whom returned in 1905. The remaining 3 patients were married and were 24, 46 and 54 years of age respectively. Vocation: butcher, carpenter and manufacturer. The interval between the accident was 1 month, 8 years, and four years. In 2 cases there was concussion of the brain, in 1 case the illness developed after a shaking up in a railway accident. In 1 case there was indirect hereditary taint. One patient, 46 years of age, was a heavy drinker, and exhibited arterio-sclerotic changes.

The clinical forms exhibited almost all the varieties which one usually finds in the case of accident patients. Decided hysterical and neurasthenic forms did not occur often; irritable, querulous claimants for dam-

ages were pretty frequently represented; on the whole the hypochondriac, weakly, irresolute personalities were in the majority. A smaller group of cases aroused special interest. These were mentally incapable of doing the simplest tasks, and in consequence one might at first be deceived into believing, that these were cases of distinct dementia. At first the case of one of these patients was wrongly diagnosed as dementia paralytica. In 1 case a severe fracture at the base of the skull led to the development of genuine dementia, which made necessary the sending of the patient to an asylum for the insane. There was also among the patients one of the seldom occurring cases, that of pseudospastic paralysis with tremor.

The 2 patients who met with accidents, while at work, put in no claim for damages, and continued to work without interruption; 2 patients made claim for damages after the expiration of $1\frac{1}{4}$ years and 2 years respectively, and worked in the meantime; the remainder stopped work immediately after the accident or a few days later, and only a very few of them made attempts to start work again.

In the majority of the patients, the decrease of the mental activity was tested in the psychological laboratory by the method of adding numbers together. From this we perceived, that the work done was very trifling. The capacity for work was considerably decreased; in a number of cases there was even a falling off from day to day. An increase of weariness generally speaking could not be proved; on the contrary, the work curves do not exhibit any marked influence on the will in the majority of cases.

Some patients exaggerated their malady, but in none was there simulation. In fixing the amount of damages the general principle was adopted, after careful consideration of the peculiarities of the individual forms of sickness, of not granting more compensation than the patient would receive from his regular employment.

13. PSYCHOPATHIC PERSONALITIES (NITSCHÉ).

1905.

Of all the patients admitted in the course of the year 105 belonged to this group of psychical disturbances. Of these cases 7 were brought twice to the clinic during the year, so that the total number of patients of this character admitted amounted to 98.

The two sexes were approximately equal in numbers; we had 51 male and 47 female patients.

With regard to the age of the psychopathic patients on admittance, we find that a striking number of the men were between 20 and 30 years of age, and a relatively large number of the women between 46 and 50 years of age. We may get an idea of the relation from the following table:—

Age.	Men.	Women	Age.	Men.	Women.
11-15	1		41-45	3	4
16-20	4	7	46-50	3	11
21-25	13	7	51-55		
26-30	14	4	56-60	2	1
31-35	3	5	61-65	1	2
36-40	7	5	66-70		1

The most frequent cause for the bringing of the patient to the clinic was an unsuccessful attempt at self-destruction, or threats to do so.

In a relatively large number of cases excessive excitement, in conjunction with some exterior irritation, a quarrel, or the death of a relative, led up to it. Other patients were introduced in a simple or pathological state of intoxication. Others again came of their own accord, or were brought to the clinic by their relatives; depressive natures in order to be treated; ethically defective young people, whom the relatives had sought in vain to make lead a proper life, and who were now to have their state of mind looked into; degenerates, who after committing an offence had to be brought to an institution. Some few patients asked for admission, as they were depressed, were tired of life, and were suffering from all sorts of nervous troubles; it turned out that the patients were temporarily in need, being without money or place of abode, and that this condition of poverty had driven them into the clinic.

Here are the most important causes which contributed to the bringing of the patients to the clinic:—

Reason for admittance.	Men.	Women.
Suicidal attempts	12	13
Threats to commit suicide	0	4
Mental excitement... ..	2	9
Intoxication	5	6
Pathological intoxication.....	8	.....
Depression owing to poverty.....	3	2
Whole character of the disease	20	13

Let us now take a short survey of the clinical peculiarities of the cases belonging to this group. There were 9 cases of constitutional depression, (4 men and 5 women). In the case of a not inconsiderable number of patients, (9 men and 2 women), ethical defect was prominent. Four of the men exhibited, along with pronounced instability and great unsteadiness in their mode of life, a wandering impulse and an inclination to venturesome swindling. These were intelligent persons, in whose anamneses were found occasional hysterical or epileptoid symptoms, fainting spells, states of bewilderment, depression with *taedium vitae*; 2 of the patients in question had been for a long time very hard drinkers.

In 14 cases, instability was the main symptom. Severe cases of imaginary compulsion were 3 times observed; 6 male patients were particularly worthy of notice, in whose cases the main symptom of disease was alcoholic intolerance. One patient may be described as a born criminal, and one case of pseudodipsomania came to our notice.

To these types may be added a number of deviations of a less severe character: abnormal characters, timid, reserved natures; particularly perverse, irritable persons; easily affected, weak-willed people. Among the women were a number of excitable, capricious, irritable natures (20), and among the men irritable, violent people (11).

In a relatively large number of cases (21 men and 9 women) dipsomania was observed. In the case of 8 men alcoholism was the main cause of their moral and economic degeneration. Pathological reaction after alcohol occurred in 11 men.

In 24 cases (11 men and 13 women) there was an inclination to self-destruction.

Hereditary taint was proved in 48 patients, in 10 from the dipsomania of the parents, and in 38 from mental and nervous diseases.

Three were born out of wedlock, and the parents of a female patient were blood relations.

Twenty-one cases (13 men and 8 women) had been criminals. The offences were theft, fraud, bodily violence, assault, begging, vagrancy, exhibitionism and cruelty to animals.

Twenty of the patients (9 men and 11 women) had to be conveyed to an asylum for the insane. In 6 of them it was the inclination to 'drink, which had robbed the weak-willed patients of their last support; 2 women had committed illegal transactions, were acquitted, and admitted to the institution as dangerous to society. It was found necessary to admit three other patients on account of an extraordinary irritability and the continuous friction with their environment; in 4 cases on account of pronounced ethical defect and criminal inclinations. Two patients in consequence of the instability were not in a position to provide for themselves; 1 woman patient was so controlled in her actions by imaginary compulsion, that she had to remain in the institution for some time. A male patient of the same kind was taken to a sanatorium; 1 female patient owing to bodily disease had to be conveyed to an hospital.

The remaining patients, *i.e.*, 83 out of 105, could be allowed to return to their homes.

1904.

Seventeen psychopathic patients (12 men and 5 women) were admitted in the time from the opening of the clinic to the end of the year 1904.

The following table will give information about their ages:—

Age.	Men.	Women.	Age.	Men.	Women.
16 to 20 years.....	1	1	51 to 55 years.....	1	.....
20 to 25 years.....	3	.....	56 to 60 years.....	.....	.....
26 to 30 years.....	1	1	61 to 65 years.....	.....	.....
31 to 35 years.....	3	.....	66 to 70 years.....	.....	.....
36 to 40 years.....	.....	2	71 to 75 years.....	.....	.....
41 to 45 years.....	2	.....	76 to 80 years.....	.....	1
46 to 50 years.....	1	.....		

The causes for their admission were affective excitement (6), intoxication (2), suicidal attempts (2); the remaining 7 cases without a particular cause of this kind being given. In 6 men and 2 women instability was predominant, and in 2 men and 3 women irritability. Among the male patients there occurred one case of pseudodipsomania, and one of imaginary compulsion; 1 patient exhibited, along with a light form of mental weakness, a decided impulse to wander, and in another alcohol intolerance was the main symptom; 4 male patients were given to drink, and in 1 man and 1 woman there was an inclination to self-destruction.

Hereditary taint was proved in 7 cases: in 2 patients on account of the dipsomania of the parents, and in 5 others owing to nervous and mental diseases; 4 men and 1 woman had committed illegal transactions, embezzlement, theft, misdemeanor.

All the men were allowed to return to their homes; 1 woman patient, owing to pronounced instability, had to be conveyed to the asylum for the insane.

14. IMBECILITY AND IDIOCY (REISS).

The number of patients admitted to the clinic owing to simple mental weakness was not large; there were only 14 patients of the male sex and 11 of the female sex. According to the statements of the relatives, in the most of them the mental development had not gone on properly, even from the very earliest years, but these signs were not regarded as an indication of brain disease. It was only in 1 case that convulsions were noticed in the first year, together with paralysis, which appeared again later. In 3 cases (2 men and 1 woman) the injury to the head at the age of three, 13 and six years respectively was given as the cause. Arrest of the mental development at a later age, in the 12th and 14th year was observed in 2 men; 1 of whom was later subject to attacks of unconsciousness. There was a late bodily development in 1 male and 4 female patients; 2 patients (1 male and 1 female) were born out of wedlock. Wetting of the bed was observed in 1 case, convulsions in 2 women patients. Numerous bodily signs of degeneracy occurred in only 2 men and 1 woman patient. Psychogenetic disturbances were more frequently noticed, trembling, nervousness and similar troubles in 4 men and 3 women patients, psychogenetic attacks in 1 man and 2 women patients. Extreme irritability, leading to disagreement with the environment occurred in 3 men and 2 women. Genuine states of excitement on the other hand were observed in only 2 women. In 2 additional cases (1 man and 1 woman) they had to be regarded as the results of chronic alcoholism, existing at the same time. The misuse of alcohol was proved in 5 men and 3 women patients, 3 of the men were very susceptible to the effects of alcohol. Nevertheless in 1 of the patients the misuse of alcohol, as well as the susceptibility to alcoholic drinks, seemed to have a connection with a trauma, which he had suffered in later life. In 2 patients (1 man and 1 woman), epileptic attacks appeared only in later life, while mental weakness had been there from earliest youth; 6 male and 4 female patients had hereditary taint. There was in addition to this alcoholism of the father, or of both parents, in 3 cases (1 male and 2 female patients). As regards the character of the mental weakness, in most cases it was a question of disturbance of the intelligence. It was only in 3 cases, 2 of whom were men, that the disturbance was in the main a moral one. Admittance to the clinic was occasioned by a lack of knowledge, and the impossibility of their earning a living, in the case of the men twice, in that of the women three times; by the misuse of alcohol in the men, three times, in the women, once; by instability in both sexes once; by irritability or states of excitement in the men four times, and in the women three times; 3 men and 1 woman were handed over to the clinic on account of criminal tendencies; 2 women owing to suicidal attempts, and 1 man looked up the clinic to obtain the opinion of the committee about his case: 7 male and 3 female patients had committed deeds punishable by law: bodily violence and fraud occurred each once; disturbance of the peace, begging and vagrancy each twice, and theft four times in the case of the men, and in that of the women begging and vagrancy only once, and fraud twice. Two women were prostitutes.

The circumstances were quite similar in the case of 6 of the patients admitted in the last two months of the year 1904, among whom was only 1 female patient; 1 of the male patients came through a chronic chorea,

and in another the bodily development was deficient. Physical signs of degeneration, wetting of the bed, convulsive symptoms and hysterical attacks occurred in each one of the male patients. Extreme irritability was observed in 2 male and 3 female patients, states of excitement in the men, both of whom were alcohol drinkers. Besides these two, there was still a third, who had to be designated as a drinker. Hereditary taint was proved in 2 male patients and the female patient. Apart from this the father of the woman patient was a drinker. Admittance to the clinic was occasioned in the case of the male patients twice, owing to their incapability of supporting themselves, once, on account of instability, excitement and criminal tendencies; the women patients were admitted on account of unsteadiness and irritability. Illegal actions were committed by 4 men patients, and fraud twice, and once moral offences and vagrancy. The woman patient had committed larceny.

There were no idiotic patients admitted in the last two months of the year 1904. In the year 1905, 6 (5 men and 1 woman) were treated in the clinic. Four of these patients had been idiotic from birth; in 2 of them the mental derangement was not noticed until later in life, in another it arose in conjunction with convulsions at the age of 13 months, and in the fourth after a severe attack of pleurisy in the 10th year; here therefore it was not really a question of idiocy, if the previous history is to be relied upon. Backward bodily development was observed in 1 of the male patients. Two were suffering from epileptic attacks, and 1 in addition from numerous psychogenetic disturbances.

The woman patient and three of the men patients were extreme idiots, who were incapable of even speaking distinctly. The 2 remaining male patients were irritable persons, both of whom had been brought to the clinic on account of moral offences. There was hereditary taint in the woman patient and in 1 of the men patients, as well as alcoholism of the parents in both cases.

15. VARIOUS SMALLER GROUPS OF DISEASES (BUSCH).

Different forms of disease came to our notice during the years 1904-1905 only a few times. A thorough discussion of these would take us too long, so we shall therefore give only a synopsis of them.

In the last months of the year 1904, from the beginning of November to the end of December, the cases of 2 men were diagnosed as paranoia. The one, a querulent person of middle age was discharged unimproved. The other was an active old man presumably 79 years of age, who had lived a life of beggary and vagrancy. His phantastic delusions that he was a person especially favored by God, and the King of the Jews, his adventurous experiences as King of the Jews, while being pursued through Prussia, dated apparently many years back, and did not leave him, even in the clinic, where he had all sorts of peculiar experiences with a special significance. He is still living at the present, unchanged, in the asylum for the insane.

A 20-year old girl was suffering from amentia (in Kraepelin's sense). In undergoing laparotomy on account of tubercular peritonitis, she showed a certain excitement, which became more violent after eight days. Then vivid illusions of sight set in, (flowers, animals, etc.), and she became confused. She came to us in a state of dreamy delirious confusion; she was at the same time restless and talked incessantly, and incoherently about everything under the sun. The capacity for apprehension was greatly weakened, she named objects correctly, but failed completely to recognize her

friends and environment. Now and again her physical condition improved, and she became quiet, but never clear; she then left the clinic uncured and physically unsound as well. Later, however, she recovered her health completely.

A young man was brought to the clinic, owing to a wound in the head, which resulted in numerous convulsions, and soon developed into a condition of delirious stupefaction with moderate excitement. He was, however, able to leave the clinic after some weeks, considerably improved.

Rapidly changing mood and great excitability accompanied the chorea minor of a 15 year old girl, who was admitted twice for a short time.

A man of 50 years of age was brought here quite stupefied, having vivid illusions of hearing and a high fever. The tubercular meningitis from which he was suffering caused his death after some days.

The following table gives an idea of the different cases:—(1904).

Diagnosis.	Men.	Women.	Total.	Died.		Sent home.		In the Institution.	
				Men.	Women.	Men.	Women.	Men.	Women.
Paranoia	2	.....	2	.....	.....	1	.....	1	.....
Amentia.....	.....	1	1	.....	.....	.....	1	.....	.....
Traumatic Delirium...	1	.....	1	.....	.....	1	.....	.....	.....
Chorea Minor.....	.....	1	1	.....	.....	.....	1	.....	.....
Tubercular Meningitis.	1	.....	1	1	.....	.....	.....	.....	.....
	4	2	6	1	.....	2	2	1	.....

In the year 1905 paranoia was observed only once. This case was a widow 42 years old, who for 11 years had the delusion, that she possessed the gift of prophecy. When this inspiration came over her she fell asleep, which lasted with short lucid intervals for half a year. Summoned to bring about the salvation of the human race, she had had many struggles with the devil. She was made happy by numerous visionary experiences, dreamy wanderings through heaven and earth, and a clear insight into the past and future. These visions occurred seldom in the day time, but generally at night, and she stated, that she lay in a peculiar trance-like state, but was by no means asleep. Influenced by the pathetic assurances of the inspired prophetess a number of people became her followers and adherents. Her young daughter was affected similarly to the mother, and began to have similar visions. This intelligent patient is at the present time still unimproved in the asylum for the insane.

The severity of their diseases brought a man of 33 and a woman of 52 years of age to the clinic. In a struggle for an annuity the one had become a pseudo-querulent, he had only moderate intelligence and was very quarrelsome. The female patient leaving her relatives, who had very little intelligence, coming under the influence of more clever and energetic persons, had carried on for years a hopeless and despairing struggle against a decision of the Civil Courts. This decision had been given years ago and evidently was really a harsh verdict.

Two cases (2 women of 54 years of age), suffering from nervous psychoses, were of special clinical interest. The disease began with symptoms of depression, and soon changed into a state of helpless mental confusion with aimless excitement, nonsensical and incoherent conversation. A rapid

decrease in weight corresponded to the increase of the excitement. One of the patients gradually became more confused, the anxiety disappeared, she talked incessantly and incoherently in an undertone, and in spite of a good appetite, death followed from progressive emaciation. The result of the post-mortem examination will be given in section 18. In the other patient the degree of excitement varied: quieter, apathetic periods set in, during which she was confused and unapproachable. She was sent home after eight months. This disease is not identical to Wernicke's nervous psychosis.

There was another case described as the nervous psychosis of myocarditis in a male patient with severe heart disease. He exhibited states of stupor, with unmeaning actions of terror, such as running his head against the wall, etc. This patient was admitted to the institution, where after several months' treatment he was psychically cured, but succumbed to his heart disease.

A woman 57 years of age, who was hard of hearing had been troubled with some depressive ideas and marked hallucinations of hearing, which she scarcely recognized as such. This case soon improved, and after a sojourn at home quite recovered.

Of four patients suffering from tumor cerebri, three (two men, 30 and 45 years old, and a girl 15 years old) died in the clinic. The post mortem examination showed glioma, gliosarcoma, and deciduoma. Along with the corresponding symptoms connected with the nervous system, there was prominent in all three cases a slowly progressive stupor and somnolency. Short periods of a peculiar euphoria interposed in the case of the women patients; they, however, showed no paralysis. The last of the patients, a 37-year old woman had been subject for a year to attacks of an epileptic character; the symptoms of a slowly growing tumor of the brain, accompanied by depressive illusions and hallucinations of sight were not marked until a year ago. She was discharged uncured.

Two patients suffering from abscesses of the brain died, one (a female patient) on the day of her admission, the other (a male patient), in a few weeks; he was also suffering from arteriosclerosis, and for a year past exhibited childish states of excitement.

A young man with the symptoms of compression myelitis of the dorsal marrow showed no psychical disturbance.

A middle aged man who was brought to the clinic in a stuporous, confused and excited state, died on the day of his admission; he was suffering from meningitis, following suppuration of the middle ear. A case of multiple sclerosis of some years duration exhibited a bewildered state of excitement, with numerous auditory and visual hallucinations. This patient improved rapidly, but remained very nervous and excited.

A young woman with hallucinations of sight, and stupefaction of a uraemic character improved; a 41-year old man with similar symptoms died. In a like manner septicaemia with increasing stupefaction brought about the death of a 30-year old woman.

Decided depressive delusions, vivid delirium with hallucinations of feeling, sight and hearing was brought about by erysipelas of the face; the patient was restored to health.

Exophthalmic goitre came once to our notice; the patient had the usual nervous symptoms and was psychically sound.

Two girls of 22 and 18 years of age were suffering from chorea minor. In both cases the symptoms of the disease were very violent; twitching of almost the whole of the muscular region hindered all capacity for work.

The elder had sometimes depression as well, and was always very irritable. She was brought three times during the year to the institution, and left at last time very much improved and capable of work; the younger one was almost cured.

Four cases belonged to the group of drug intoxication. Two patients were suffering from the morphine habit, another from cocainism, and still another from heroinism. There was only 1 woman patient among them, and she was in addition hysterical and a great drinker. She left the clinic soon, uncured. The morphine patient and the cocaine patient came to us only for quarantine, to which they again subjected themselves with good results in the same year. The morphine patient repeated the experiment with the same result in the year 1906.

Both of these patients owed their first acquaintance with the poison to the prescription of a doctor, and they afterwards made use of it occasionally, if they were not feeling well, or were in trouble of any kind. The latter of these patients, a physician, had taken morphine out of curiosity, and had then accustomed himself to the use of it. Having had his attention drawn to heroin by advertisement, he tried to counteract the opium by the use of this drug. He succeeded, but only to become a slave to heroin. The poison had not affected his brain. The removal of the disease was brought about in four days, accompanied by sneezing, yawning and violent tension of the limbs. According to him (although the statements of the patients cannot always be relied upon), he had injected 0.5 grains daily. In the year 1905 he took none, but later he had a relapse, and was brought to the clinic again for 12 days, suffering from states of mental confusion of short duration. All the other patients were, like this one, distinct psychopathic personalities, with the exception of the morphine patient, who is still to-day in good health. The misuse of poison had probably developed from this inclination to disease.

It turned out that 6 persons had been brought to the psychiatric clinic by mistake. One of these was suffering from rheumatism in the joints; high fever and headache had led to his one case being taken for a psychical derangement, as he answered very slowly and unwillingly.

It was not evident why a 34-year old man had been brought to us from a hospital. A third came after a domestic scene; he had excited himself somewhat, without, however, passing the boundary of physiology.

Two girls complained of pains in the body, which were not, as had been surmised outside of the institution, of a psychogenetic character, but were apparently caused by a gynecological disease.

Another girl was admitted because she had jumped into the water, though from sufficient reasons; she showed no signs of disease. Finally a woman in perfect health was brought here by her husband, who was a hard drinker. She went with him quietly to prevent him getting excited.

16. DIAGNOSTICALLY UNCERTAIN CASES (LUETTGE).

In a number of cases a diagnosis could not be given at the time of dismissal:

1904.		1905.	
Men	7	Men	49
Women	7	Women	34
<hr/>		<hr/>	
14		83	

The number of these cases is relatively large, but that is in part occasioned by the peculiar circumstances to which a clinic in a large city is exposed. All the unconscious drunks, all of those overcome by convulsions or fainting spells, if their place of abode cannot be found out, are brought to the clinic by the ambulance corps, and for the most part these patients request to be dismissed on the same, or on the following day. The officials of the ambulance corps as a rule give no information, except that the patient in question was overcome by "spasms of the heart," and on admittance the form of the disease is often coloured by the acute action of the alcohol. As the patients were under observation only for a short time, and as an objective anamnesis in many cases cannot be obtained, it is very often impossible to decide, whether it was a case of epilepsy or hysteria, or an organic brain disease.

1905—Diagnosis.				Died.			Dismissed.		In the Inst.	
	Men.	Women.	Total.	Men.	Women.	Total.	Men.	Women.	Men.	Women.
Paranoia		1	1							1
Pseudo-querulants	1	1	2				1	1		
Nervous psychosis (angst- psychose)		2	2		1	1		1		
Nervous psychosis (myo- carditis)	1		1						1	
Psychosis of the deaf woman		1	1				1			
Tumor cerebri	2	2	4	2	1	3		1		
Brain abscesses	1	1	2	1	1	2				
Compression-myelitis of dorsal marrow	1		1				1			
Meningitis	1		1	1		1				
Multiple sclerosis		1	1					1		
Træmia	1	1	2	1		1		1		
Septicæmia		1	1		1	1				
Erysipelas delirium		1	1					1		
Morbus Basedowi		1	1				1			
Chorea Minor		2	2					2		
Drug poisoning.										
Morphinism	1	1	2				1	1		
Heroinism	1		1				1			
Cocainism	1		1				1			
Not mentally and nervous- ly diseased	3	4	7				3	4		
	14	20	34	5	4	9	8	15	1	1

Of the 14 undiagnosed cases belonging to the year 1904, 3 were only from 1 to 2 days in the clinic. Of the 83 cases for the year 1905, 11 were dismissed on the day after admittance, and 4 two days after. Among the 15 cases just mentioned epilepsy came in question 7 times, and paralysis 7 times, (lues cerebri).

In all the cases which were not diagnosed, we endeavoured to obtain a correct diagnosis afterwards. To a number of the catamnesic inquiries we obtained the answer, "not known," and others again were either not

answered at all by the patient in question, or in such a deficient manner, that no conclusions as to the diagnosis could be drawn. Some patients presented themselves in person; others were repeatedly admitted to the clinic. A number could be further observed in the institutions, and in some cases the post mortem examination, and the investigation in the anatomical laboratory of the clinic, (Dr. Alzheimer), yielded information.

We made certain of the diagnosis in 4 out of the 14 cases from the year 1904.

1. Julie S., married, 58 years of age, 31st of October to the 30th November, 1904. From the beginning reserved and excited, wrote poetry in 1903, of a melancholy, visionary character, and had it printed. Ill since the beginning of 1904; hypochondriac maladies, nausea, sleeplessness, terrible dreams. Many times in nerve sanatoria, hysterical neuroses, with previous mental enfeeblement. August, 1904, attempted to commit suicide by throwing herself into the Isar. Weakly woman with senile appearance. In the clinic the manner of the patient was anxious and unsociable; she resisted all investigation, wept, screamed and demanded her dismissal. If she were taken to her former environment, she became suddenly talkative, and recited with pride the poems written by herself. Related little episodes and laughed heartily. She could not give information about any definite point of time during her life, and expressed regret that her memory, "owing to headaches," had become so poor. Gradually quieter, anxious at times, susceptible to humor. Was taken away in spite of dissuasion. The diagnosis (maniacal depression), owing to senile condition was set down with reservation, when she was dismissed. In September, 1906, her husband informed us, that the patient had recovered quickly after leaving the clinic, that she was now in good health and spirits, amiable and obliging towards her friends and interested in everything.

2. Maria F., married, 42 years of age, 14th November to 16th November, 1904. Removed from the medical clinic. Pneumonia of the right lung (unterlappen). Since 8th November decline of fever. Husband of patient suffering from paresis. Patient had been for a year under the care of a physician owing to nervousness. On admittance to the medical clinic, (9th Nov.) megalomania; thought she was the queen of Saxony and had an enormous property. Irritable, violent, excited and very restless while in the clinic. The patient screamed and resisted all advances, wounded herself continually with her finger nails. Very poor nutrition. Pupils average dilated, left more dilated than right; the light reaction could not be accurately tested, owing to the high state of excitement. No albumen in the urine. Rapid decline: on the 16th November died. Diagnosis: probably paresis. The post mortem examination yielded no parietic changes in the brain; there were microscopic forms such as are observed in infection delirium.

3. Mina B., 41 years of age, ad. the 8th of November, 1904, to the 2nd February, 1905. Previously always cheerful and healthy; no fluctuations of mood; changed in the last two years; states of excitement with touches of anxiety; attacks of dizziness. The summer of 1904 she heard her name called; her memory weakened; depression; comparatively good state of nutrition; struma, very quick pulse; orderly, and orientation good; anxious expression; spoke slowly in a melancholy tone, answered occasional droll remarks with a short laugh. Depression becoming gradually more evident. Patient showed no inclination to employ herself. She seldom spoke to other patients, and forbade visits to herself. Slight tremor of the fingers; pulse continually very high (140). Suspected to be Basedow's dis-

ease. Antithyreoidin and rodagen had no influence on the action of the heart. Gradual and continuous increase in weight, on a milk diet and rest in bed. Gradual improvement in the psychological condition. In the summer of 1906, the patient presented herself again; she was in a sanguine, cheerful almost humorous mood. She informed us, that after leaving the clinic, she felt restless and indolent for some months, but that now she had no more troubles; even the palpitation of the heart had decreased. Pulse 120. On dismissal her case was thought to be either maniacal depression or Basedow's disease, but it is now thought to belong to the former group.

4. Anna Sch., married, 40 years of age. 27th September, 1904, to 2nd February, 1905. See case 6, 1905.

The diagnosis was uncertain in 10 cases from the year 1904. Two of these are worthy of particular attention.

George B., 28 years of age, 25th November, 1904, to 7th December, 1904, and 17th December, 1904 to 30th December, 1904. Dementia praecox. Psychopathy.

Margarette M., 8th December, 1904, to 19th January, 1905. A paranoic disease with a peculiar course.

These two cases will be discussed later.

1905.

1. Cases (19) having a sure diagnosis.

1. Josepha Sch. Married, 66 years of age. 15th January, 1905, to 29th January, 1905, and 27th February, 1905, to 14th August, 1905. Hard of hearing, complained of incessant roaring in her ears. At times out of humour and tearful, sometimes in a good humour. Patient thought, that the whole world considered her a criminal. She would be seized. She was industrious and fond of work. The further course of the disease in Eglfing asylum for the insane in Munich, confirmed the diagnosis considered as probable. It was senile persecutory psychosis.

2. Sophia P. Unmarried, 26 years of age. 16th January, 1905, to 21st February, 1905. Three years previously mentally deranged for three-fourths of a year; was excitable, scolded, saw forms and heard voices. Since then she spoke now and again to herself. Irregular menstruation. For 10 days ill again, heard voices, saw relations and was irritable. Pupils did not react, when exposed to the light. The convergence reaction scarcely to be noticed. Patellar reflexes present, not increased. Swayed a little when standing with eyes shut. Articulatory disturbance of speech, and disturbance of writing to a slight degree. Euphoric disposition, patient laughed and talked incessantly in a confused manner. Change of mood. The patient heard dogs barking under her bed; she was reproached. In the environment, nothing but old acquaintances were recognized, meaningless answers, spoke rapidly and without expression. While speaking scarcely any reference made to illusions. Stiff carriage, affected behaviour, January 19th, short attack of unconsciousness, no paralysis, January 23rd, lumbar report negative. In continuous unrest. On dismissal, final diagnosis not decided, upon. In favor of paresis, euphoric disposition with change of mood, disturbance of the pupils, moreover, indication of disturbance of speech and writing; hyperalgesia, fainting spells; for lues cerebri, staring pupils, hallucinations, etc.; for dementia praecox the course of the disease, hallucinations, impulsive habit, excitement, apathy, and the negative lumbar report. Dementia has now set in with states of excitement. At the same time the patient was affable and euphoric; she remembered, that she used to hear voices. Now she has become quite insane. The pupils are not cir-

cular; there is no reaction and accommodation, when exposed to the light; thin voice. Diagnosis *lues cerebri*.

3. Therese K., 26 years of age, 23rd January, to 29th January, 1905. Depression. Diagnosed as probably maniacal depression, still it was left undecided on account of the peculiar, childish behaviour of the patient, whether it was not a case of dementia praecox in its early stages. The mother informed us that soon after dismissal, the patient recovered her health entirely.

4. Eugen K., merchant, 44 years of age, 29th January to 18th April, 1905. The wife estimated the duration of his sickness at 14 years, two cousins insane, father and sister nervous. Always irritable, easily excited. In consequence of money losses the patient went to America in 1890, where he was induced by a farmer to try to discover the "perpetual motion." He worked at it very persistently, and kept becoming more nervous. 1892, state of excitement, spent 5 months in a hospital? After that busied himself at different employments. Even at this time the patient stated, that he was chosen to realize the second advent of Christ. In 1897, he returned to Germany, and ran a grocery for three years, but without success, as he wanted to conduct everything on a large scale. He invented a machine, which was patented, and a tobacco sign intended for a shop window. During the last few years he busied himself only with his inventions; was very irritable thought that he was the inventor of the perpetual motion, which would bring him in millions. He believed that he was Christ, and could raise the dead. According to the statement of the wife, great fluctuations did not occur in the last 10 years. In the clinic, behaviour quiet, self-satisfied, air of superiority. In a long rhapsodical article, written in a prophetic style, to the composition of which he devoted a great deal of time, the merits of the inventor, E. K., illumined by the Holy Ghost, were set forth. K. explained in this article, that he had succeeded in his experiment by a simple trick, in discovering the dead centre. He had applied this up to the present only to three objects, the bottle stopper, a folding chair and a collar button. All this was explained in a tone of the deepest conviction. No consciousness of disease. On the ward patient was quiet, but extremely irritable. He quarrelled continuously with other patients, and became very irritable as soon as he believed himself to be neglected in any way. There was no sign of illusions. Towards the close of his residence in the clinic, K. became madly excited, went about in an unnatural attitude, danced and screamed; he turned his head in all directions, distorted his face, put his head under the water, while taking a bath. After a few days, conduct again quiet. Childish laughing. The diagnosis was originally set down as "Paranoia"; the state of excitement depicted however made it probable, that it was a paranoid form of dementia praecox. K. was conveyed on the 8th April, 1905, to Egling. He conducted himself then in anything but an affable manner, and would not answer any questions; he stood on one leg and turned himself slowly about in a circle, rocking his body at the same time. May, 1905, quiet, reserved, inaccessible, tore his shirt. Sudden change: affable, hesitating answers. Patient admitted, that he had had illusions. Stuck to it that he was a genius and a great reformer. Then excitement again with meaningless movements. The case is now counted among those of dementia praecox.

5. Rudolf B., 33 years of age. 7th February to 28th April, 1908. Had lues, 1897. Since the summer of 1904, nervous; unable to do his work, syphilophobia. Said he saw soldiers during the last few weeks, who wanted to shoot him. Pupils dilated, react to light. Patellar reflexes active,

tremor of tongue and of closed eyelids. Speech slow, no difficulty in articulation. Dull, apathetic, anxious, resistive; believed himself syphilitic. On the 10th and 12th February had clonic convulsions with tendency to stupor, catalepsy: ischuria. Later his manner varied between approachable and reserved. Orientation fair. At the beginning of March became more approachable, with some insight and consciousness of his affection. Since the middle of March depressed, approachable, heard voices, which reproached him of onanism and syphilis, was very emotional, wept, said he was at his wits' end, was afraid of appearing before the police magistrate, and begged some one to shoot him. This case was at first diagnosed as dementia praecox, owing to the dull apathy and at times stupor (cataleptic), and the preponderance of hallucination. This diagnosis was changed to maniacal depression, when the patient became approachable, emotional and depressed, with some insight into his disease, and his troubled helpless behaviour. The further course of the disease confirmed the latter diagnosis, for the patient, according to his father, completely recovered some time after his discharge. He worked for himself, and became interested in everything. "Every moment something new occurred to him." His letters were without mistakes, and well composed. On the 26th June he was brought to the clinic for the second time, because he had given senseless orders to his employees: he was cheerful, jovial, very talkative and responsive. Rapid progressive imbecility, euphoria, megalomania, gave millions away daily and bestowed titles freely. Pupils react to light, but lack secondary reaction, voice thin, disturbance in writing, great increase of cellular element in the lumbar fluid. Diagnosis, progressive paresis.

(6) Anna Sch. 40 years of age, unmarried. 27th September, 1904, to 28th February, 1905, and 1st to 3rd March, 1905. A case of severe psychopathy with hysterical symptoms. Struma, rapid pulse, and some exophthalmos pointed to Basedow's disease. In Eglfing previously moderate behaviour. The hysterical symptoms were so prominent, that the case was set down as hysteria.

(7) Anna Z., 27 years of age, hospital nurse. 1st March to 13th March, 1905. Previously quite healthy. Since confinement (Jan., 1905), depressed; had idea of committing suicide. Patient had to be forced to work. On admittance had anxious expression, spoke as little as possible, gazed anxiously out of the window. Answered only after long hesitation. Unapproachable. Patient allowed her tongue to be pierced without expression of pain, and without shrinking, was apparently entirely passionless. She thought, that the other patients talked about her. Gradually more free. Dismissal demanded in a monotonous way; no inclination to employment of any kind. In December, 1905, the patient informed a physician on an accidental meeting, that she had been melancholy up to July, 1905. Cheerful lively manner. Recently patient wrote a letter in which a cheerful, almost exuberant tone prevailed. On dismissal a decision could not be arrived at, whether it was a case of dementia praecox or maniacal depression. To judge by the last communications made to us it was probably the latter.

(8) Mara H., married. 34 years of age. 9th March to 28th March, 1905. Suffered from diplopia, in the middle of the year 1890; 1899 cutaneous eruption; injections of pot. iodide. Since then attacks of dizziness. Autumn, 1904, suppurating disease of the nose. In the last few years frequent attacks of unconsciousness, (duration 1 to 2 minutes). Pupils not equally dilated; the right pupil did not react to light and with convergence; weakness in the left facial nerve; nystagmus in a slight degree. Weakness in the right abducens. Bitten, lacerated lips; suppurating discharge

from the nose. Hyperalgesia particularly of the right side. Patellar reflexes very responsive, right stronger than left. Skin and periost reflexes responsive. No Rombergism. Imbecile, euphoric behaviour. No disturbance of speech or writing. Oriented as to place and time. In the clinic attacks of unconsciousness of short duration many times observed. The diagnosis (*lues cerebri*) was at first suggested with reservation, because the lumbar report was negative. (March, 1905, and 6th April, 1906.) Patient was brought several times to the clinic since; she had several wounds which she had got during the attacks. The disturbance of the muscles of the eyes became worse in spite of anti-luetic treatment. Otherwise same condition as previously.

(9) Jakob K., painter, 46 years of age. 12th March to 31st March, 1905. Previously healthy. Two years earlier plumber's colic and delusion of persecution. Last 3 and 4 weeks restless sleep, vivid dreams. During the night from 8—9 March, great restlessness, confused speech; ideas of persecution. Patient wished to throw himself from the window, or to stab himself; he saw beetles, etc., and "trembled." Drank daily 3 measures of beer and 4 and 5 glasses of gin, anaemic, poorly nourished, no lead poisoning, weakness of the left facial nerve. Pupils equally dilated, right not quite round; when exposed to the light, prompt reaction. General hyperalgesia. When speaking "tremor" of the muscles of the face. Thin voice. Stuttered. Violent trembling of the hands, flabby muscles, no neuritis; tendon reflexes responsive. Quiet, indifferent disposition, distinct feeling of illness. Patient had no remembrance of ideas of persecution spoken of by his wife, but admitted, however, that he had seen beetles, etc., which he had tried in vain to catch; he felt now dizzy and stupid. On pressure of the eyeballs saw golden stars. In writing the tremor was plainly to be seen. On the following day, dull, apathetic behaviour. Patient informs us, that he heard talk of imprisonment, and was also called by name. Behaviour not anxious. The disturbance of speech gradually improved. In the lumbar fluid no increase of the cellular elements. Diagnosis remained doubtful. The symptoms of alcoholism were prominent; delirious condition with violent trembling and distinct feeling of illness. On the other hand, disturbance of speech, weakness of the facial nerve and hyperalgesia. On the 19th January, 1906, the patient presented himself again. He was perfectly composed and normal, and careful in his appearance. Had a perfect recollection of the events, which had taken place in the clinic. Poor capacity of apprehension to which K. himself drew attention. Slight weakness of the left facial nerve. Trembling of the fingers, lips and eyelids; in speaking sometimes stuttered. Irregular writing, which was explained by the patient, as due to the excitement caused by the examination. According to those observations we may conclude that it was a case of alcoholic insanity, in its earlier acute stage.

(10) Friedrich T., merchant, 34 years of age. 13th to 15th March, 1905, Since 1900, sometimes depressed, sometimes cheerful and jovial, megalomania, one year in the asylum for the insane. Till now (1904) always indifferent, uninterested, inactive, not acutely depressed. Brought to the clinic on account of an hysterical attack. Owing to the short time for observation (2 days) it could not be decided, whether it was a case of dementia praecox or maniacal depression. The patient was brought again to the clinic from the 3rd to the 19th July, 1906, owing to excitement of an hysterical character. He was indolent and without energy, but at the same time querulous and officious, so that the diagnosis was maniacal depression.

(11) Sophia H., 23 years of age, unmarried, 3rd June to 10 June, 1905. Dreamy disposition. Two years ago, for some months, exhibited great excitement. Melancholy for some weeks "because her fiance proved untrue to her." Thought of committing suicide. Brought to the clinic because she had tried to open an artery. Depressed; psychomotoric inhibition, anxious expression. Was dismissed on the 10th June. The case was diagnosed as probably maniacal depression; but it was also thought, that it might be a case of psychopathic depression. According to the statement of the mother, the depression lasted for some time after dismissal. Since then patient has recovered her health completely, and is able to work. Diagnosis, maniacal depression.

(12) Regina D., 48 years of age, married, 27th June to 30th June, 1905. Extremely anxious state of depression with decided hypochondriac coloring, and impulse to self-destruction. Diagnosis probably maniacal depression, nevertheless, judging by the conduct of the patient, it was not improbable, that it was a case of organic brain disease. Dismissal followed three days after admission. We learned from a letter of the patient (March, 1906), that the depressed state still continued, but there was no mental deterioration. The case is now considered as belonging to the group of maniacal depression.

(13) Felix W., day laborer, 52 years of age, 28th to 30th June, 1905. Came from Schwabing Hospital, where he was treated for liver complaint and ascites. Brought to the clinic on account of great excitement, nutrition poor, feeble; much ascites and icterus; pericarditis, rigid arteries; at times quiet and thoughtful, at times great restlessness and excitement. Died, showing rapidly increasing cyanosis and dyspnoea 30th June, 1905. The diagnosis (arterio-sclerotic brain disease) was confirmed by the post mortem examination.

(14) George A., 43 years of age, 2nd July, 1905, dismissed on the same day. After drinking a large measure of beer on a hot day, state of excitement suddenly broke out, patient ran about the streets in his shirt, resisted violently when being brought to the clinic. Soon afterwards quiet and thoughtful. Total amnesia. In May, 1905, a heavy object had fallen on the head of the patient, afterwards unconscious for 5 to 10 minutes. Since the anamnesis showed no good grounds for supposing, that it was epilepsy, the case was not diagnosed. On the 18th March, 1906, the patient presented himself again and informed us, that since May, 1905, every four weeks he felt "cracks" in his head. He felt very much depressed from time to time, and did not care to be spoken to by any one, sometimes everything whirled about him. Diagnosis, epilepsy.

(15) Gottfried T., porter, 53 years of age, 27th August to 8th September, 1905. Since the 24th August mental derangement: patient fooled about, could not carry out orders, did everything wrong. Romborgism, otherwise no physical symptoms, jovial, witty, cheerful, quite disoriented, contradictory and nonsensical statements, which changed from one moment to another; he was 18 years of age and born in 1344; believed himself in a different place every moment. Many attacks of unconsciousness, increasing weakness, apathy, cyanosis. Died (8th September) from paralysis of respiratory centre. Owing to the lack of all physical symptoms the case could only be diagnosed as probably tumor. On post mortem examination a small soft tumor was found in the pons.

(16) Catharine P., 54 years of age, 19th September to 11th November, 1905. Syphilitic infection at 17 years of age, miscarriage. For five weeks melancholy. Headache, weariness, restless sleep. Patient was absent-

minded, burnt the food. Pupils equally dilated, light reaction present. Patellar reflexes could not be elicited, on account of strong tension, awkward walk, marked Rombergism, no disturbance in articulation, tremor of the tongue and hands. In the lumbar fluid copious increase of the cellular elements. During the first few days depressed, feeling of illness, disoriented as to time and place. On the days following morose and resistive, refusing to answer questions. On passive movements of the extremities decided resistance, sullen behaviour, patient stood there stiffly without moving. Nihilistic ideas (no nose, no eyes). Tendency to stupor, unapproachable and mutacistic. Quick awakening from the stupor; said she was not worthy to be thrown on the dung-hill, was dead. The tremor, the awkward walk, the defective orientation, the nihilistic ideas, the positive lumbar report, pointed to progressive paresis, the sullen behaviour, the stupor, the mutacism and negativism to dementia praecox. The further course of the disease in Eglfing favored the former point of view.

(17) Sebastian M., shoemaker, 47 years of age, 25th September, 1905, dismissed on the same day. Found on the street suffering from attack. On admittance, stupefied, patient gradually came to himself after some hours, he stated that he had suffered from attacks for some years. On investigation he proved to have imperfect apprehension of surroundings, and mixed up incidents taken from his life. The pupils react sluggishly, and are not circular. The diagnosis (epilepsy or paralysis) could not be established, since he was dismissed on the same day. On the 2nd admission, 2nd January, 1906, patient was clear and oriented.

From the full information given by him the case was diagnosed as epilepsy.

(18) Wilhelm H., builder, 43 years of age, 22nd October to 2nd December, 1905. Nutrition very good, muscles and nerve roots very painful, if pressed upon. Violent tremor of the hands. Depression and irritability. Could for the most part influence his mood in conversing with him. Patient then made fun of himself in a humorous way. The form of the illness was very much modified by kidney and heart trouble. Died on the 2nd December, 1905, in consequence of ulceration in the caecum. It was a question of chronic alcoholism or maniacal depression. The post mortem report shewing decided brain atrophy, and leptomeningitis, confirmed the diagnosis chronic alcoholism.

(19) Joh. R., porter, 55 years old, 30th December, 1905 to 5th February, 1906. Employed up to the time of admission. Depression with great restlessness and anxious, confused delusion, hyperalgesia, thin voice, lack of patellar reflexes, pointed to progressive paresis. In Eglfing further development of the disease showed megalomania, etc.

In 25 additional cases we expect to obtain a correct diagnosis from later katamnesic inquiries. These will be found in the next reports.

Finally we come to 38 cases, which appear impossible to explain. Some of these patients have died in the meantime. It is impossible, in the majority of these cases, to obtain sufficient information to assist us in diagnosing them accurately. Three cases belonging to this group are particularly worthy of mention.

Eliza G., married, 65 years of age, 14th April to 5th July, 1905. Until 7 days before, normal mentally. Sudden outbreak of anxious excitement, patient wept and screamed; all sorts of things had been told her: her husband was to be murdered, and many others as well. Illusions of sight, nutrition poor, reaction of the pupils slow and imperfect, lively patellar reflex, disturbance in writing, during the first few days completely dis-

oriented, unapproachable, hypochondriacal delusions, as that she had worms in her stomach, which she had to spit out continually. Frequent change of food. Patient stood for hours at a time in a stiff position, and screamed out one name in a monotonous manner, at other times she lay in extraordinary positions in the bath without moving at all. In the beginning of May, quiet and sleepy: she thought that the other patients were talking about her. Delusions of poisoning, without much feeling, her head was full of chloroform. Hallucinations of smell. A plaster had been stuck on her back while in the closet. The husband was always with her, even if she did not see him. Lumbar report negative. At the beginning of June, anxious, distrustful; her son was to have his head cut off, she herself had to die. Patient left the bed continually, spoke softly to herself, shook the doors, made crosses in the air. She heard voices during the night telling, that everybody was murdered and placed in a common grave. Her hands and feet had become quite small, and that was a sign that she was to die. Once the patient said, that she was to be chosen as Queen of the May, and the celebration would take place soon. In the meantime she watched closely everything, that went on in the room: she knew what was the matter with the other patients, even if she was very reserved in expressing her opinion. In the beginning of July very much improved. Insight into her illness, everything seemed to her like a dream. The patient spoke very much and willingly, cheerful, natural behaviour. According to the statement of her husband, the patient was in good health for some months after dismissal. She died on the 26th October, 1905, after a short illness, "she fell asleep quietly." Diagnosis was difficult owing to the frequent change of condition. At first it was thought to be progressive paresis, on account of confused ideas of time and place, and owing to the hypochondriac delusions. The sluggish pupil reaction, the lively patellar reflexes, the awkward walk, the disturbance of writing, all pointed to this, but on the other hand, the negative lumbar report was against it. Later, when the delusions of compulsion and poisoning became prominent, as well as the hallucinations of hearing, smell and feeling, it was believed that it was a psychosis of the spinal cord. The further course of the disease, the unexpected improvement, the cheerfulness, the talkativeness and her knowledge of illness, made it probable, that the disease belonged to the group of maniacal depression.

Karolina S., 47 years of age, 5th May to 6th May, 1905. Four years ago states of confusion, which lasted from 2 to 3 hours, and appeared at intervals of several months, never had convulsions, never fainting spells, patient was excited some days before admission, she screamed, talked and laughed, delusions of poisoning. In the clinic the patient was quite confused, moved her hands in an automatic fashion, and spoke in a sing song tone. She thought that she was standing before the judge, listened to his questions, and answered with a rapt expression. Apparently vivid illusions of sight and hearing. Judging by the clinical form it was probably a state of bewilderment. On the morning after admittance, vomiting, unconsciousness. The pupils were dilated, and did not react on exposure to light. No Babinski reflex. Later slight spasms in all extremities. Died in the afternoon at 5.30 o'clock. The post mortem examination in the pathological institute showed ptomaine poisoning as the cause of death. Microscopic changes were found in the brain, such as occur in acute intoxication.

Anna W., 37 years of age, 27th May to 5th August, 1905. For the last 8 years has suffered from megrim. During last 2 years, after a quarrel she sank into a state of sleep, which often lasted for hours. Patient was "for the moment completely paralyzed," while walking sometimes states of be-

wilderment of short duration, professedly with complete amnesia. Good nutrition; struma parenchymatosa; pulse 78, conjunctival reflex could not be elicited, corneal reflex weak. Psychogenetic tremor of the fingers; pupils very much dilated, otherwise no variations in the physical report. In the clinic, often in the morning states of sleep. The patient lay stiff as if hypnotized; staring look; amnesia. Every few days attacks; whirling around, pushing movement with the extremities. Questions were answered during the attack. No biting of the tongue, no discharge of urine. In the clinic rapid improvement of all these symptoms. Dismissal 5th July, 1905, , diagnosis, hysteria. On the 30th July. according to the attending physician had another attack like the previous ones. In conjunction with it deep stupefaction, no slowness of pulse, temperature up to 40°. On the 1st August died. Since no post mortem was made the case remained uncertain, (tumor cerebri?)

17. SUICIDE AND INSANITY (GAUPP).

We have in Munich a useful custom, that persons at the time, or after an attempt at self-destruction are brought by the board of health to the psychiatric clinic, in case the injuries sustained by them in their attempt at suicide did not require surgical treatment. The number of people brought to the clinic in this manner is not small; all are by no means insane, and in need of a long residence in the institution; many can be dismissed, when they become quiet again. The question as to the relation between mental disturbance and suicide, according to the causes and motives of treatment will be later discussed by Dr. Gaupp. Here only some statistical results are given.

During the year 39 men and 34 women were admitted to the clinic, after an attempt at self-destruction. In the case of 18 persons (6 men and 12 women) distinct insanity had preceded; in the case of 17 (16 men and 1 woman), the deed was committed, while under the influence of alcohol; 10 (6 men and 4 women) were suffering from epilepsy; 4 women from hysteria; 24 persons (11 men and 13 women) were psychopathic, easily excited people, of whom a few were also under the influence of alcohol, without being, however, chronic drinkers; in the case of one woman there could not be proved any disease, outside of the mental exhaustion brought on by unusually severe adversity. *Not one of those brought us was in good health.*

Age.	Men.	Women.	Age.	Men.	Women.
10-20 years	4	6	41-50 years	7	3
21-30 "	9	8	51-60 "	5	4
31-40 "	13	11	Over 60 "	1	2

18. DEATHS AND CAUSES OF DEATHS (ALZHEIMER).

In the last two months of the year 1904 four men and one woman died: one case of pachymeningitis haemorrhagica, one of senile dementia, one of delirium in pneumonia crouposa, one of meningitis tuberculosa, and one of delirium tremens.

In the year 1905 thirty-three patients died (21 men and 12 women). Their attendance was as follows:—

1-2 days.	3-7 days.	1-4 weeks.	Over 4 weeks.
11	9	8	5

Diagnosis.	Men.	Women.	Cause of death.
(1) Septic delirium		1	Septicaemia.
(2) Intoxication delirium?.....		1	Unknown intoxication.
(3) Dementia Praecox.....		1	Angina Ludovici.
(4) Nervous Psychosis		1	General Marasmus.
(5) Korsakoff's Psychosis	1	1	1 Miliary Tuberculosis.
			1 Myodegeneratio cordis.
(6) Epilepsy	2	1	2 Status Epilepticus.
			1 Aspiration Pneumonia.
(7) Progressive Paresis.....	5	2	1 Cerebral Softening.
			1 General Sepsis.
			1 Myodegeneratio cordis.
			1 Hypostatic Pneumonia.
			1 Apoplectic Attack.
			1 Tuberculosis of Lung.
			1 Burns.
(8) Dementia Senilis.....	1	2	1 Pulmonary Tuberculosis.
			1 Marasmus.
			1 Myodegeneratio cordis.
(9) Arteriosclerosis of brain.....	7		2 Cerebral Apoplexy.
			3 Myodegeneratio cordis.
			1 General Arteriosclerosis.
			1 Pneumonia crouposa.
(10) Abscess of Brain	1	1	2 Abscess of brain.
(11) Purulent Meningitis following Otitis media.	2		2 Meningitis Purulenta.
(12) Tumor of brain	1		1 Tumor of brain.
(13) Uncertain cases.....	1	1	1 Pneumonia crouposa.
			1 Pneumonia Hypostatica.

In the case of seven of the 33 patients autopsy was not permitted. The cause of death therefore could only be gathered from clinical reports. For a similar reason one case from No. (15) remained uncertain, in which during the life of the patient the differential diagnosis between brain lues paresis and epilepsy could not be established.

The case mentioned in (2) could not be decided upon. According to a statement made by the pathological institute, the post mortem examination yielded a result, which pointed to poisoning, and the clinical symptoms as well did not tend to contradict this view. The microscopic examination of the brain yielded similar changes to those found in the case of botulism. Since it was a question of a person, who had earlier had attacks of psychical disturbance, and who had lived a solitary life, the case could not be cleared up by the information received from the police.

The two epileptics who died in a status epilepticus, were already in a dying condition, when brought to the institution, so that no remedies were of any avail; the third epileptic was brought in with a fracture of the larynx, after an attempt at strangulation. He died of aspiration pneumonia after tracheotomy had been performed. The patients with abscess of the

brain and meningitis exhibited such dangerous symptoms, that a surgical operation could not be ventured upon.

19. RESULTS OF MICROSCOPIC INVESTIGATION (ALZHEIMER).

The microscopic investigation of the patients, who died in the clinic yielded a result of universal interest, of which we shall now give a short account.

A paralytic died, who had had frequent attacks of an apoplectic nature, which had left paralysis of one side. We had expected to find typical paralysis with especially great atrophic changes in the corresponding Rolandic area. There was, however, in the centrum ovale a fresh area of softening, which had separated almost the whole of the central convolutions from their connection. Such a result is not frequently met with in paralysis. Owing to the fact that there was no heart disease, and the lack of arterio-sclerotic vascular changes, we may assume that a vascular luetic disease was the cause of the softening. We did not succeed however in finding out the vessel in the pulpy mass, which had caused the softening; on the other hand there was found, along with the softened arteries a vessel showing a circumscribed syphilitic change in the vascular wall, which had almost produced a stoppage. It seems therefore probable, that we have here along with paralysis a softening occasioned by syphilitic vascular disease.

A woman, whose case was set down in the table as nervous psychosis! (angstpsychose), died under increasing bodily and mental decay. Unfortunately owing to a misunderstanding a post mortem examination was made of only the brain. The microscopical investigation showed profound changes in the brain mantle, which have never been described as occurring in senile and arterio-sclerotic disturbances. Along with great changes in the ganglion cells, which showed themselves particularly in a granular transformation of the protoplasm, and marked changes in the granular cells, there was an extensive over-growth of the neuroglia, and a great part of the over-growth had already undergone regressive changes. Infiltration was entirely lacking in the pia, as well as in the brain mantle; on the other hand the vessels were surrounded by great quantities of detritus. The microscopic result was a peculiar one, and it has not been decided, whether it always presents itself in cases with similar clinical features.

For the clinical mode of observation of epilepsy the results are undoubtedly of great interest, which have been obtained from the investigation of the case of a patient, who died in status epilepticus. He was a boy 16 years of age, who had suffered from convulsions during his teething period; however, according to the statements made by his relatives he had been apparently perfectly healthy after this time, up to the day before his admittance, had then had an epileptic attack followed by several others, and died a few hours after admittance, and 17 hours after the first attack. Apart from the attacks, which he had had in childhood he was healthy up to 17 hours before his death. On investigating the brain, however, there were found quite considerable growths of the glia, particularly in the hemisphere marrow, growths which, according to their whole nature, could not possibly have developed in a few hours, especially as a small portion was regressively changed. This observation shows that it was not the epileptic attack, which terminated the disease, but that a diseased condition of the brain had existed previous to the attack.

Some further observations are not without interest, which were made in investigating the brain of two patients.

One case has been set down above as vascular lues. There was extensive lymphocytosis. On investigating the brain arteries, the usual destructive arteriosclerosis was recognized; in all the vessels, even to the very smallest, yellowish concretions were observed, which exhibited microscopically a slating of the elastica, with extensive fatty and calcareous degeneration. So at first we did not seem justified in ranking this case with luetic diseases. Finally, however, there were found some places at the convex of the brain in which remains of infiltration in the pia, and in the walls of the brain vessels could be established. Since such infiltrations are lacking in arteriosclerosis the conclusion is justifiable, that we have here before us either the residue of a former luetic meningomyelitis, or perhaps of one that has remained abortive. In contrast to this there was found no infiltration in one case, which is to be ranked among the arterio-sclerotic diseases, and in which could be proved a lymphocytosis even as extensive. Of course it is beyond our power to investigate a central organ uninterruptedly from the frontal area to the cauda equina. The great increase in the lymphocytes in the cerebro-spinal fluid made it however probable, that an infiltration was present somewhere or other.

It is to be seen therefore, that a separation of brain lues and arteriosclerosis is not always easy, especially since, as I have often experienced in the case of old luetically infected persons, there is not always observed the really luetic arterial disease.

In some other cases the microscopic investigation made it easy to decide, whether it was a case of paralysis, arteriosclerosis, or alcoholism, when diagnosis could not be established with certainty during life.

Finally, in another case which was classed as uncertain under "causes of death," no changes could be established to account for the severity of the form of the disease. Now this fact is neither strange nor discouraging. There is still so much of the complicated structure of the brain mantle, which we are not familiar with, that it is not altogether inexplicable, if we cannot establish with certainty in the case of severe mental disturbances any special pathological phenomena. When we have once become thoroughly familiar with those structures, it will be possible for us also to discover the changes resulting from disease.

Generally speaking the material, which is brought to the clinic for histological investigation, in comparison with the variety of the psychical diseases must be called scanty and onesided. That is to be accounted for by the fact that the clinic represents only a transitory place of residence. The anatomical laboratory would be less able to perform its duties, if it did not enjoy the support of individual asylums for the insane, more especially of the district asylum, Eglfing.

20. PSYCHIATRIC POLYCLINIC (GUDDEN).

The psychiatric polyclinic is situated in the ground floor of the clinic, and comprises two large rooms for investigation, the polyclinic auditorium, one room for the acting physician, and a waiting room. All of which are in the middle of the building, and on the side of the building we have one room for electric baths and various water applications.

The rooms for investigation are provided with all the apparatus, which modern diagnostics and therapeutics demand for psychical and nervous diseases. Thus for the examination of the eyes we have at our disposal a dark chamber, electric eye-lamps, and a complete box of lenses with the Snellen tables (Tafel); for the investigation of the hearing, ear mirrors, and

a complete row of tuning forks; for the investigation of the urine, a chemical table and cupboard, along with the necessary reagents. We have as well the necessary instruments for testing the senses of feeling and touch. Vibration apparatus operated by electricity serve for therapeutic purposes, a large generating machine for producing galvanic and induction currents. The two bath rooms contain, on the one hand the full bath and the most efficient douches (head, side, sitz, etc.), and on the other hand an electric full bath (Fayence bath tub), and a bath of four compartments. The bath tubs of the latter were originally made of glass, but as they were easily broken, we have replaced them by wooden ones.

The attendance of the polyclinic, which was held with the exception of Sundays from 11 to 1 o'clock, amounted in the first year, *i.e.*, from the middle of November, 1904, to the 31st December, 1905, to 466 patients, 322 of whom were men and 144 women.

The following forms of disease were observed:—

Neurasthenia	70 cases (63 men, 7 women)
Hysteria	45 " 8 " 37 "
Dementia Praecox	41 " 32 " 9 "
Epilepsy	41 " 35 " 6 "
Traumatic neurosis and psychosis	36 " 33 " 3 "
Imbecility and idiocy	35 " 24 " 11 "
Progressive paresis	34 " 25 " 9 "
Maniacal depression	29 " 12 " 17 "
Alcoholism, chronic	25 " 23 " 2 "
Neuralgia (kephalgia, trigeminusneuralgia)	15 " 13 " 2 "
Dementia senilis	12 " 7 " 5 "
Ideas of compulsion	10 " 5 " 5 "
Brain apoplexy and apopleptic dementia	11 " 6 " 5 "
Climacteric nervous and psychical disturbances	8 "
Lues cerebri	7 " 3 " 4 "
Tabes dorsalis	6 " 3 " 3 "
Chorea with psychical disturbances	5 " 1 man 4 "
Psychical states of exhaustion	4 " 1 " 3 "
Psychopathy	5 " 4 men 1 woman
Basedow's disease and other thyrogenic psychical disturbances	4 " 2 " 2 women
Lead intoxication	4 " (all men)
Querulous insanity	2 " "
Diabetes mellitus with psychical disturbances	1 " "
Nervous or psychical disturbances in the case of internal diseases (heart disease, nephritis, etc.)	11 " 9 men 2 women
Paranoid forms of mental weakness	5 " (all men)

